Affordable Urbanism:

Developing Transit-Oriented, Mixed-Income Housing & Light Industrial Facilities in Atlanta

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The Case for Affordable Urbanism

"The recession exacerbated longstanding affordability challenges. High unemployment has driven up the share of households with severe cost burdens, while the ongoing foreclosure crisis has displaced families and blighted whole communities. Meanwhile, federal housing assistance programs face cuts as the nation struggles to address long-term fiscal imbalances. With energy costs rising, the pressures are increasing to pursue more energy-efficient housing construction and more sustainable patterns of development."

- Harvard Joint Center for Housing Studies, 2011

America is at a critical crossroad. Our country is experiencing the worst income inequalities ever recorded within our borders. Of the 140 countries for which the CIA World Fact Book tracks data, only 41 have a more inequitable income distribution than the United States, and many of those are developing countries. Our great nation – the land of opportunity – now has a more unequal income distribution than Iran, Cambodia, and the recently toppled plutocracies of Egypt and Tunisia (data accessed December 02, 2012 at www.cia.gov). The pattern is even bleaker in terms of wealth. According to the Nobel Prize-winning economist Joseph Stiglitz, twenty-five years ago the top 12% of Americans commanded 33% of the country's wealth; today, the top 1% of Americans hold 40% of the wealth nationwide (Stiglitz, 2011; see also Drennan, 2011; Norton & Ariely, 2011).

London's *Financial Times* reports that "the annual incomes of the bottom 90 per cent of US families have been essentially flat since 1973 – having risen by only 10 per cent in real terms over the past 37 years," (Luce, 2010). Thirty years ago, a high school drop-out could by the end of their career make $15 an hour in professions such as mining – the equivalent of $40 an hour today - $83,520 at a 2,088 hour work year (ibid). Despite the expansion of higher education and the higher prevalence of dual-income households today, the U.S. Census Bureau reports that 15.3% of Americans – nearly 1 in 6 people – lived in poverty last year (Bishaw, 2011). This amounts to 46.2 million people living below the poverty line - $22,314 for a family of four. Last year, one in five Americans (20.1%) lived below 125% of their poverty threshold.

In short, income inequalities in America have reached epidemic proportions. This state of affairs has serious implications not only for the life circumstances of Americans and the health of our democracy, but also for the prospects of the global economic recovery, as the consumer spending of the United States' middle class has traditionally been a critical engine driving global market expansion. As Joseph Stiglitz writes, "many of the distortions that lead to inequality—such as those associated with monopoly power and preferential tax treatment for special interests—undermine the efficiency of the economy," (Bishaw, 2011).

This could certainly be said of the deregulation of the mortgage finance industry in America, which together with vertical disintegration, "created transactional failures between different parties in the securitization and affiliated lending processes (Immergluck 2009, 100). These transactional failures ultimately led to the overvaluation of risky mortgage-backed securities and collateralized debt obligations, many of were undergirded by mortgage fraud and predatory lending (ibid). It was overexposure to these products that unleashed the two trillion dollar financial meltdown upon the burst of the housing bubble.

The long-term recovery and sustainability of the American economy relies on expanded opportunities, protections, and political accountability to our low- and moderate-income citizens. Strengthened financial regulations, consumer protections, and fair lending practices are only part of the solution. Households in the 25 largest metro regions spend an average of 59% of their budget on housing and transportation costs (Hickey, 2012). Transit-oriented, mixed-income housing can play an important role in lowering the cost burden of low- and moderate-income Americans.

However, what is perhaps most critical is that America sees fundamental improvement in unemployment rates, as well as higher-paying opportunities and better job security for the bottom 80% of our workforce. President Obama's new emphasis on domestic manufacturing is a step in the right direction, and a timely one given the shifting economics of global trade (see Ferreira, 2009; McDermott, 2009; Kozloff, 2012). Developing industrial facilities that are transit-oriented, modern, safe, and neighborhood-friendly will provide America's most vulnerable families with access to higher-paying jobs and better advancement opportunities than those typical of the service sector. Affordable urbanism locates quality workforce housing and employment opportunities together near transit to create a multiplier effect, helping everyday Americans earn more and spend less.

Elements of Affordable Urbanism

Transit-Oriented, Mixed-Income Housing

As transportation costs continue to rise (see Bellio, 2012; Koerth-Baker, 2012; McDermott, 2009), workforce housing with poor access to transit, services, and employment centers will do less and less to ease struggling households' budgets. In Metro Atlanta, combined housing and transportation costs rose 2.7 times faster than median household income between 2000 and 2010 – the second highest rate in the nation (Hickey et al, 2012). Moderate-income Atlantans (those earning between 50% and 100% of the area median income) face a disproportionate cost burden; these households spend a combined 63% of their income on housing and transportation (ibid).

Although Atlanta is posting average home prices below year 2000 levels (S&P/Case Shiller, 2012), "what Atlanta lacks are affordable homes in conditions and locations that people want to live," (Tate, 2012). The households that would benefit the most from access to transit are often priced out of transit-served neighborhoods. Rapid home price appreciation near the Atlanta BeltLine preceding the Great Recession (see Immergluck, 2007) should be a reminder that currently depressed home prices will not last. Several local planning efforts are preparing for this eventuality.

Atlanta BeltLine, Inc. has established an affordable housing trust fund and supported the creation of the Atlanta Land Trust Collaborative, in order to facilitate the preservation and development of permanently affordable housing near the BeltLine. The Metropolitan Atlanta Rapid Transit Authority (MARTA) has established affordability requirements for transit-oriented developments on MARTA property. Central Atlanta Progress has identified all development opportunities along the Atlanta Streetcar route. Enterprise Community Partners has convened a TOD work group to spur collaboration and innovation across sectors and disciplines. As the BeltLine, the Atlanta Streetcar, and 10 planned MARTA station redevelopments proceed to fruition, Atlanta has a prime opportunity to redefine itself through affordable urbanism.

Transit-Oriented, Light Industry

Millions of Americans will continue to see structural budget shortfalls until real wages increase relative to the cost of living. The American manufacturing revival supported by the Obama Administration can play a key role in addressing this situation. The average wage for all U.S. manufacturing jobs was $58,485 in 2010, compared to an average wage of $47,290 for all U.S. jobs overall (Helper et al., 2012). Moreover, shifting patterns of global commerce suggest that American industry has reached the end of a long contraction. The U.S. manufacturing sector added over 400,000 jobs between 2010 and 2012, after over a decade of steep declines (U.S. Bureau of Labor Statistics data reported in Khimm, 2012). This reversal is due in part to manufacturing executives becoming savvier about the full costs associated with offshoring, including quality control problems; longer, slower, and less nimble supply chains; lack of visibility; and issues of piracy and intellectual capital theft (Ferreira & Prokopets, 2009). Increasingly, savings on foreign labor costs, commodity prices, and exchange rates are insufficient to justify these costs (ibid).

Manufacturing job growth presents challenges for American cities, however. Smart growth strategies frequently redevelop low-cost urban industrial land for other uses, reducing the supply of viable industrial land in cities, undermining the potential for urban manufacturing growth, and contributing to industrial sector sprawl (Leigh and Hoelzel, 2012). Between 2004 and 2009, the City of Atlanta lost 12% of its light and heavy industrial-zoned land to rezoning (Leigh et al., 2009).

In response to the encroachment of non-industrial uses into industrial areas, the City of Atlanta, Invest Atlanta, and the BeltLine are crafting a revised industrial policy to attract, retain, and expand industrial businesses in the City (J. Lewis, personal communication, Nov. 19, 2012). The Atlanta BeltLine's redevelopment framework strives to balance the need for urban industrial space with the need for residential and employment densities capable of supporting new transit (ibid). Partly in response to this challenge, the City is developing "a Mixed Use Industrial District that will allow for industrial, commercial, and residential uses, including zoning incentives to provide dense industrial and mixed-use new development; targeting 'New Economy' clean industrial uses; [and] including design standards that support compatibility of mixed and adjacent uses," (City of Atlanta, 2011, p. 528).

Selecting Target Light Industries for Transit-Oriented Development

The conventional distinction between light and heavy industry has to do with negative externalities. In the City of Atlanta and in general, to locate in a light industrial zone, a business must not produce adverse effects beyond the property line, including loud noises, vibration, noxious fumes, or other hazardous byproducts, (City of Atlanta, 1977; Frej, 2001). Commonly, light industrial land uses include final-stage or "clean" manufacturing, wholesaling, warehousing and distribution, and the sale and servicing of vehicles and equipment.

Conventionally, light industrial zones have spacious setbacks and suburban densities, helping prevent any adverse effects from reaching the property line. In urban, transit-oriented environments, land uses are in much closer proximity to one another, not only horizontally but also vertically in the case of mixed-use buildings. Therefore, negative externalities must be eliminated not only beyond the property line, but also for adjacent users that may share a common wall, floor, or ceiling. For this reason, very low-impact or "ultra-light" industry can be more appropriate. Though various caveats

apply, examples of ultra-light industry include artisanal manufacturing, small- to moderate-scale food and drink processing and wholesaling, and research and development (Cotter, 2012). Attracting companies with a mission focus on environmental responsibility will help prevent future brownfields, while minimizing environmental, health, safety, and nuisance factors that would be especially troublesome in dense, mixed-use contexts (Cotter, 2012; Leigh et al., 2012).

The market value of a transit-oriented development is contingent upon creating a captivating street life for pedestrians, transit-riders, and cyclists, as well as motorists. Businesses' freight traffic should be light enough to not detract from a "complete street" environment (Cotter, 2012). Freight traffic volume is partially a function of inventory-turnover and the size of the goods being transported. Therefore a "complete street" environment favors smaller businesses and those dealing in relatively small or expensive goods, such as medical devices or jewelry (Leigh, 2012; Cotter, 2012). Transit-oriented developments face higher land costs per square foot, and require relatively small block sizes to promote a pleasant pedestrian environment, so the most compatible industrial businesses will also have relatively small square footage requirements for inventory and truck staging (Leigh, 2012).

Light industrial businesses with a retail or showroom component can help activate the street, particularly in markets where demand is lacking for more conventional retail (Cotter, 2012). Exhibition kitchens and other showcased production processes fronting on the street create visual interest for pedestrians and provide a sense of place (ibid). This is one of the competitive advantages enjoyed by Jamestown Properties' Chelsea Market (ibid), which boasts some of the highest office rents in New York's booming Midtown South office district (Geiger, 2012). Chelsea Market's unique mix of "back of house" light industrial suppliers and "front of house" retailers enables the market to offer products that cannot be bought elsewhere, creating a distinct sense of place and a vibrant shopping experience that drives demand for the office space on the higher stories (Cotter, 2012).

Figure 1. **Chelsea Market in New York City.**

Source: Destination Guides, 2012
Inset source: Chelsea Market, 2012

The experiential component of real estate is increasingly important, as internet retailers gain market share over bricks-and-mortar competitors, and as new technologies give people more freedom to choose where they live and work. Glimcher Realty Trust, a shopping mall REIT, is experimenting with "internet-proofing" its malls by offering classes (crafts, fitness, etc.), dining, entertainment, and services. Thirty of the 35 tenants at Scottsdale Quarter in Arizona offer an experiential component in addition to traditional retail. As a result, Scottsdale makes $1,000 per square foot, more than any other Glimcher mall (Clifford, 2012; Cotter, 2012). While this report is not about malls, similar

lessons apply. In a transit-oriented context, the most suitable light industrial businesses will have a retail or showroom component that offers passersby a unique experience and contributes to a compelling urban environment. Certain "ultra-light industrial" businesses such as artisanal manufacturing, food processing, and R&D lend themselves particularly well to these objectives (Cotter, 2012).

Light industrial properties typically earn lower rents per square foot than office, residential, or retail properties. This spread in rents creates a barrier to industrial development near transit, due to the higher land costs in these areas, the lower rents viable for industrial tenants, and the developer's imperative to maximize the return on investment. However, attracting light industrial businesses that drive premiums for other, mixed uses (such as in Chelsea Market) can make mixed-use industrial development a "highest and best use" strategy. For mission-oriented developers, lower-rent industrial properties can provide a public benefit, while other, higher-rent uses on the same property drive profits, resulting in a moderate but acceptable net return on investment. Still, attracting some relatively high-rent light industrial businesses (such as R&D tenants) will improve profit margins.

All other factors held constant, industrial businesses that receive market advantages from the urban environment will be able to afford the highest rents. Supply chain efficiency is a key consideration, as transportation costs are far greater than real estate costs for many industrial businesses (McDermott, 2009). For industrial businesses serving mainly regional, national, or international markets, suburban locations can provide superior access to major population centers while avoiding the traffic congestion on local roads in the urban core. However, businesses serving predominantly local, urban customers can often reach them more efficiently from a central, urban location. Prepared food producers and wholesalers serving urban hotels, restaurants, and retailers may fit this description (Cotter, 2012).

Transit can give businesses access to a large labor pool offering a variety of skill sets and educational backgrounds, as well as access to urban amenities that can help attract and retain workers for hard-to-fill positions (Cotter, 2012). Reduced employee parking requirements can offset the higher land costs typical near transit. Proximity to urban clusters of educational institutions provides a renewable labor pool and can be particularly advantageous in rapid innovation industries, such as advanced technology manufacturing and general R&D (Cotter, 2012; Helper et al., 2012).

Urban density also supports agglomeration, which gives industry clusters a local competitive advantage through increased face-to-face interaction between firms, collaborative problem-solving, a shared identity, and the development of support service firms catering to the industry clusters (Philadelphia Industrial Development Corp., 2010). Research from the Brookings Institution suggests that urban agglomeration is central both to the innovation process and to the creation of higher-wage jobs:

> "The geographic clustering of companies in the same industry or related industries – along with the educational, R&D, business, and labor institutions that support them—promotes high wages and innovation. Such clustering gives manufacturers access to specialized workers, suppliers, and customers and makes it easier for them to share ideas that can improve their performance. Manufacturers can also benefit from their location in a geographic area that has a diverse set of industries, including those not associated solely with manufacturing. In such locations, they can learn from the practices of non-manufacturing industries and gain easier access to such services as engineering, finance, legal services, and management consulting," (Helper et al., 2012, p.2).

Target Light Industries for the City of Atlanta

In a previous report, the author selected 10 target ultra-light industries for the City of Atlanta on the basis of a web of overlapping criteria (Cotter, 2012). These criteria include compatible business needs (e.g. proximity to customers, labor, and research); urban design compatibility (e.g. small footprint, light freight traffic, etc.); low impact (e.g. environmental, health, & nuisance factors); and local economic growth. The selected industries maintained employment growth in Fulton County through the recession, and for the most part also saw growth in annual payroll and number of business establishments (Cotter, 2012; U.S. Census Bureau data, 2012).

On the basis of these criteria, the author selected ten industries in three clusters ideal for transit-oriented, light industrial development in Atlanta (Cotter, 2012). These industries are outlined in Table 1 below. The first cluster involves food production, and contains industries such as chocolate and pasta manufacturers, breweries, and confectionary wholesalers. The second cluster is built around artisanal or "arts and crafts" manufacturing, and contains industries like pottery manufacturing and small-scale, ornamental metalworking. The third cluster involves research and development in the hard sciences.

Table 1. **Target Light Industries for Fulton County.**

Target Light Industries for Fulton County

- Food Production Cluster
  - Butchers (Limited meat processing permitted on-site)
  - Confectionery manufacturing from purchased chocolate
  - Cookie, cracker, & pasta manufacturing
  - Breweries
  - Confectionery wholesalers
  - Wine & liquor wholesalers
- Arts & Crafts Manufacturing Cluster
  - Commercial screen printing (Consumer goods/retail focus – not print shops)
  - Pottery product manufacturing
  - Ornamental & architectural metalwork manufacturing

    (Smaller products; hazard mitigation standards; soundproofing)
- Research & Development in the Hard Sciences (No hazardous materials)

Source: Cotter, 2012

Tables 2 and 3 below show the number of establishments in Fulton County in 2009, as well as the number of employees per establishment, for each of the target industries. According to the author's analysis of Census County Business Patterns data, Fulton County contained 38 food production establishments, 22 artisanal manufacturing establishments, and 59 hard science R&D establishments. Six of the 10 target industries had a mode range of 1-4 employees per establishment, translating to a relatively small square footage requirement for each tenant.

Table 2. **Fulton County Industry Clusters: Establishments by Number of Employees.**

Fulton County Target Industries by Cluster (2009)	No. of Estb.	Establishments by Number of Employees							
		1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999
FOOD PRODUCTION	38								
Butchers	4	1	1		1				1
Confectionery manufacturing from purchased chocolate	3		1	2					
Cookie, cracker, & pasta manufacturing	4				1		2		1
Breweries	2			1		1			
Confectionery wholesalers	7	4	1			1	1		
Wine & distilled alcoholic beverage wholesalers	18	10	2	1	1	2		2	
ARTS & CRAFTS MANUFACTURING	22								
Commercial screen printing	8	3	2		1		2		
Pottery product manufacturing	4	2	1			1			
Ornamental & architectural metalwork manufacturing	10	3	2	2	1	2			
R&D IN THE PHYSICAL, ENGINEERING, & LIFE SCIENCES	59	27	6	9	9	7	1		

Source: Cotter, 2012
Data source: County Business Patterns (Census)

Table 3. **Fulton County Industry Clusters: Establishments by Mode Number of Employees.**

Fulton County Target Industries by Cluster (2009)	Number of Establishments	Mode Number of Employees/Estb.
FOOD PRODUCTION	38	
Butchers	4	Tie: 1-4/5-9/20-49/500-999
Confectionery manufacturing from purchased chocolate	3	10-19
Cookie, cracker, & pasta manufacturing	4	100-249
Breweries	2	Tie: 10-19/50-99
Confectionery wholesalers	7	1-4
Alcoholic beverage wholesalers	18	1-4
ARTS & CRAFTS MANUFACTURING	22	
Commercial screen printing	8	1-4
Pottery product manufacturing	4	1-4
Ornamental & architectural metalwork manufacturing	10	1-4
R&D IN THE PHYSICAL, ENGINEERING, & LIFE SCIENCES	59	1-4

Source: Cotter, 2012
Data source: County Business Patterns (Census)

Industrial-Friendly Zoning in the City of Atlanta

Table 4 outlines 12 existing zoning categories in the City of Atlanta that permit at least some form of light industry, inclusive of light manufacturing (Cotter, 2012). Each of these districts has its own restrictions and caveats for light industrial land uses. Much of the land zoned in these categories is not developed with industrial uses, and never will be. Rather, these are the zones in which it is legal to develop some form of light industrial property (although various restrictions apply).

Table 4. **City of Atlanta Zoning Ordinances Allowing at Least Some Form of Light Industry Inclusive of Light Manufacturing.**

City of Atlanta Zoning Categories

Allowing at Least Some Form of Light Industry

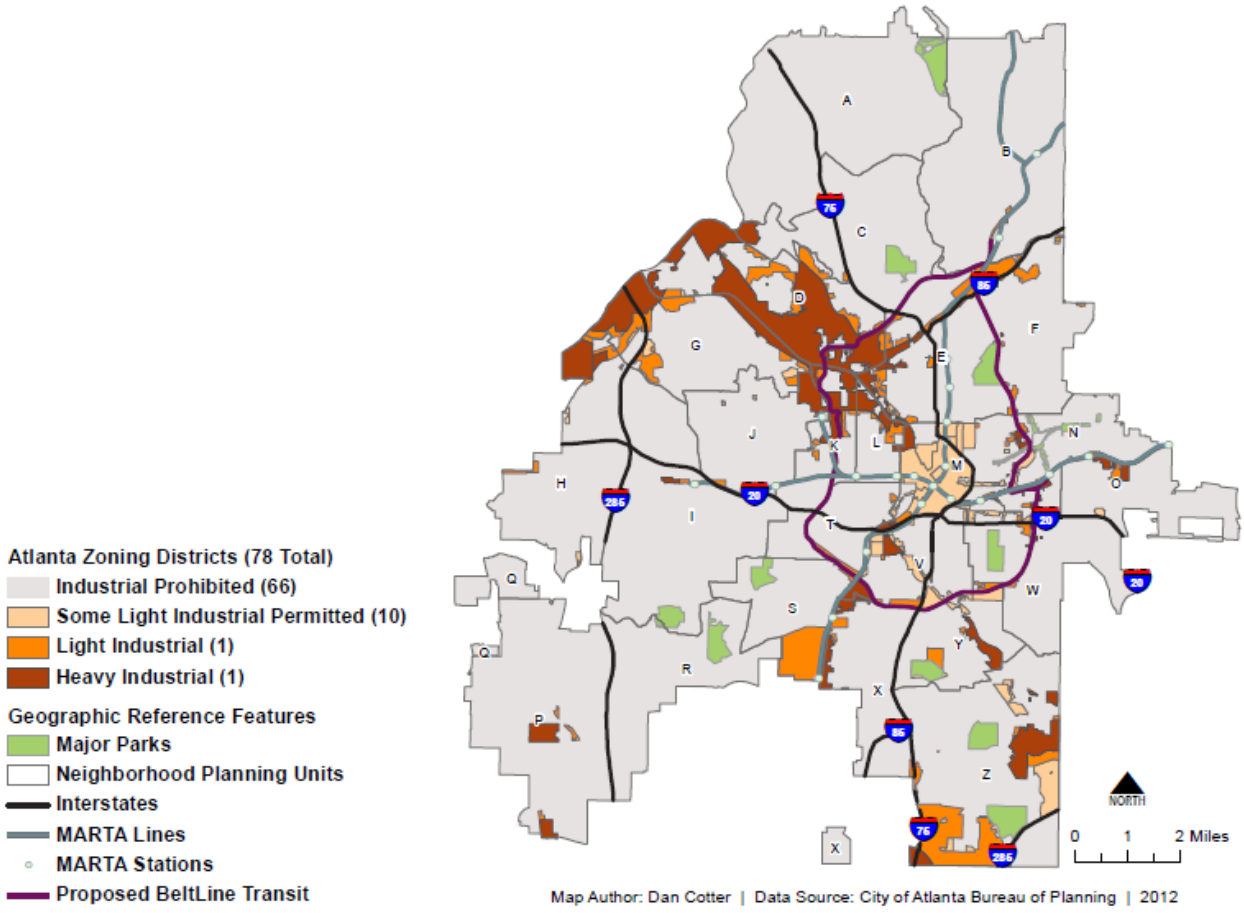
Inclusive of Light Manufacturing:

I) Industrial Districts
   1) I-1: Light Industrial
   2) I-2: Heavy Industrial
II) Special Public Interest (SPI) Districts
   3) SPI-1: Downtown (All Subareas)
   4) SPI-18: Mechanicsville (Subareas 7, 8, and 9)
   5) SPI-21: Historic West End/Adair Park (Subareas 9 and 10)
   6) SPI-22: Memorial Drive/Oakland Cemetery
III) Historic and Landmark Districts
   7) HD-20L: Inman Park (Subarea 3)
   8) LD-20C: Martin Luther King, Jr. (Subarea 5)
   9) LD-20N: Castleberry Hill
IV) Other Districts
   10) C-5: Central Business Support
   11) PD-BP: Planned Development – Business Park
   12) LW: Live Work

Source: Cotter, 2012

Figure 2 shows the distribution of these industrial-friendly zones throughout the City of Atlanta. The rust-colored areas indicate heavy industrial zoned land, which predominates in northwest Atlanta, containing some major rail yards. Land zoned light industrial is indicated in orange and is scattered around the periphery of the city, often buffering and supporting heavy industrial areas. The ten other industrial-friendly districts are clustered in the city's center and in a band extending southeast to the edge of the city.

Figure 2. **Zones Permitting Some Form of Light Industry in the City of Atlanta.**

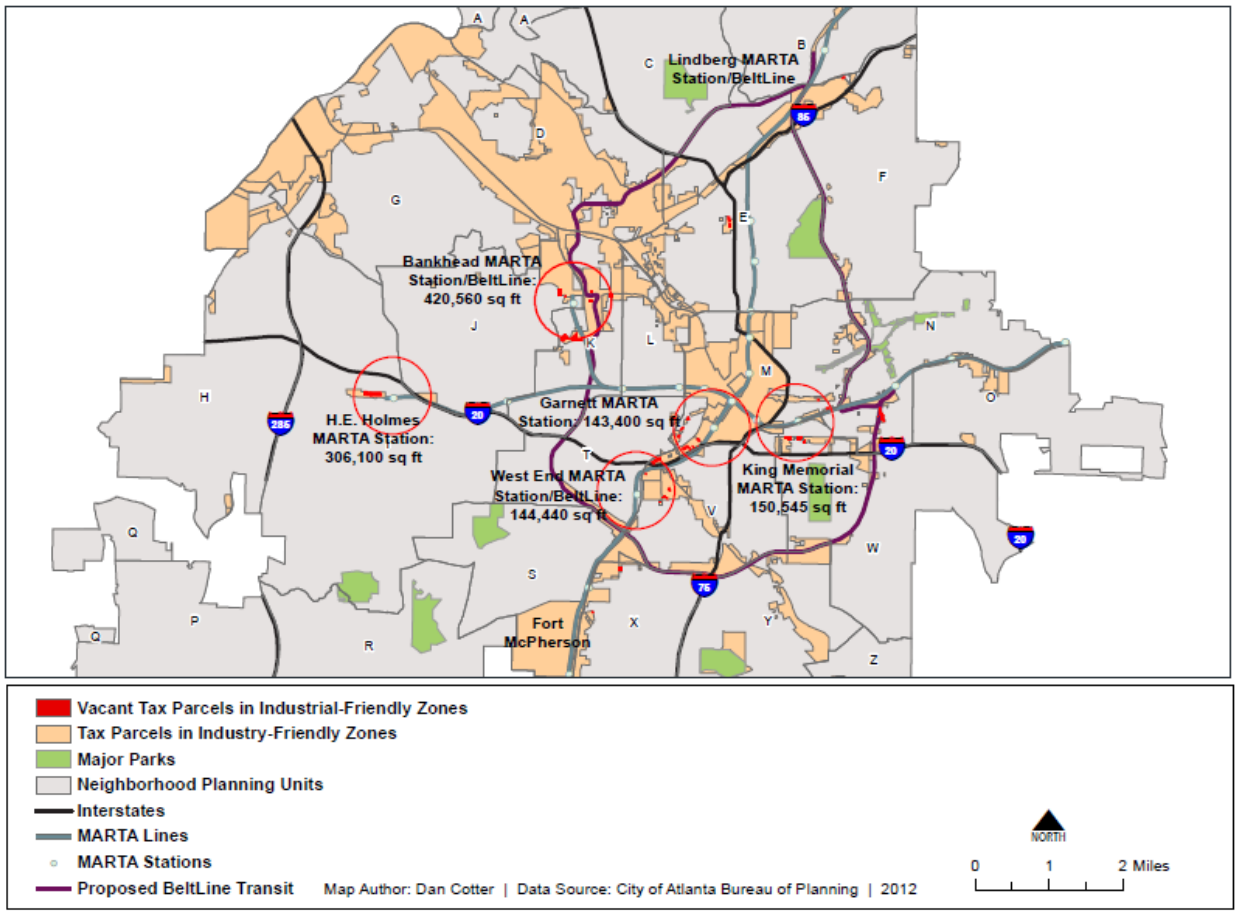


Source: Cotter, 2012

MARTA rail lines are shown in gray, and the Atlanta BeltLine transit corridor is shown in purple. Within ½ mile of MARTA stations and the Atlanta BeltLine, there are approximately 1.3 million square feet of "industrial-friendly" zoned parcels containing no buildings or vertical development. As depicted in the Figure 3 on the next page, these vacant lots are clustered around the following transit stations:

- Bankhead MARTA Station/BeltLine (420,560 square feet)
- H.E. Holmes MARTA Station (306,100 square feet)
- King Memorial MARTA Station (150,545 square feet)
- West End MARTA Station/BeltLine (144,440 square feet)
- Garnett MARTA Station (143,400 square feet)

Figure 3. **Vacant Industrial Lots with No Buildings within ½ Mile of MARTA and the BeltLine.**



Source: Cotter, 2012

For the most part, these development opportunities are concentrated in predominantly African American communities with a long history of environmental justice issues. Developers operating in these areas should strive to provide the surrounding communities with meaningful opportunities for involvement in the visioning process, and to redevelop these sites in a way that combats entrenched inequalities.

Industrial Mixed-Use Districts

Between 2004 and 2009, the City of Atlanta lost 12% of its light and heavy industrial land to rezoning (Leigh et al., 2009), undercutting the potential for the growth of family-supporting industrial jobs in the City and exacerbating Atlanta's reliance on the cyclical construction industry (Leigh, 2010). Research from Brookings suggests that by undermining economies of agglomeration, the flight of industrial businesses to the suburbs stifles innovation and wage growth in the industrial sector (Helper, Krueger, & Wial, 2012).

Partly in response to this challenge, Atlanta's Comprehensive Development Plan (City of Atlanta, 2011) recommends developing "a Mixed Use Industrial District that will allow for industrial,

commercial, and residential uses, including zoning incentives to provide dense industrial and mixed-use new development; targeting 'New Economy' clean industrial uses; [and] including design standards that support compatibility of mixed and adjacent uses," (p. 528)". As a subcontractor for the City of Atlanta's Brownfields Area-Wide Planning Pilot Program, the author produced Industrial Urban Design Guidelines and Mixed-Use Industrial District recommendations to advance the City's new industrial policies (Leigh et al., 2012). According to a source at the City, Atlanta may adopt a mixed-use industrial zoning category as soon as 2013.

The district could preserve and expand urban industrial land near transit, while allowing developers to capitalize on the higher densities feasible near transit. The author recommended requiring that a minimum of 70% of the ground floor square footage of any development be devoted to very low-impact, light-industrial uses (including an allotment for associated retail/showroom space), (Leigh et al., 2012). If the author's recommendations are adopted, mixed-use light-industrial/commercial/residential development will be permitted for the remainder of the density allotment, up to an 80% lot coverage, 6:1 floor/area ratio (FAR), and 110 foot building height (ibid). Currently, the City's light industrial (I-1) zoned land has a maximum floor/area ratio of 2:1. Rezoning such land to mixed-use industrial would award a significant density bonus to encourage transit-oriented development, while preventing the dilution of industrial business agglomeration in the city.

While a mixed-use industrial district is an innovative concept, it is not a venture into untested waters. At least thirteen industrial mixed-use districts already exist in the United States, in places including: Battle Ground, Washington; Berkeley, California; Boulder, Colorado; Corvallis, Oregon; Denver, Colorado; Glendale, California; Madera County, California; Miami, Florida; Philadelphia, Pennsylvania; New York, New York; North San Jose, California; Pittsburgh, Pennsylvania; and San Francisco, California.

Suggested Practices

Given the disproportionate transportation cost burden faced by low and moderate income individuals (Hickey, et al., 2012), mixing land uses is a critical tool for helping the community meet their everyday needs more conveniently and cost effectively. The targeted light industrial land uses can operate harmoniously in a mixed-use setting, when careful attention is given to minimizing potential land use conflicts. Soundproofing, vibration control, venting systems, traffic management, and environmental performance guidelines are the essential accommodations. In the South of Market District in San Francisco, industrial and residential uses intermingle successfully and contribute to a unique sense of place (AsianNeighborhoodDesign, 2007; Leigh et al., 2012; pictured in Figure 4). Similarly, in the South Park and Chinatown areas of San Francisco, apartments are located above carpentry shops, window repair shops, garment factories, food processing outfits, and other light industrial uses (Asian Neighborhood Design, 2007; Leigh et al., 2012; pictured in Figure 5).

Figure 4. **Horizontally Mixed Industrial and Residential Uses in San Francisco.**

Source: AsianNeighborhoodDesign, 2007.

Figure 5. **Apartments Over a Working Window and Glass Shop in the Mission District of San Francisco.**

Source: AsianNeighborhoodDesign, 2007.

Here in Atlanta, notable examples of light industrial uses in mixed-use contexts include the Cacao Atlanta chocolate factory, the 5 Seasons Westside microbrewery, and the proposed Ponce City Market mixed-use redevelopment, which may include flash-freezing facilities and a brewery.

Figure 6. **Ponce City Market Redevelopment in Atlanta (In Progress).**

Source: http://whatnowatlanta.com/wp-content/uploads/2011/06/ponce-city-market-1.jpg
Source (inset): http://www.rentcafe.com/blog/cities/atlanta-ga/new-ponce-city-market-revitalizes-historic-neighborhoods/

Figure 7. **The Cacao Atlanta Chocolate Factory Store in Atlanta's Inman Park Neighborhood.**

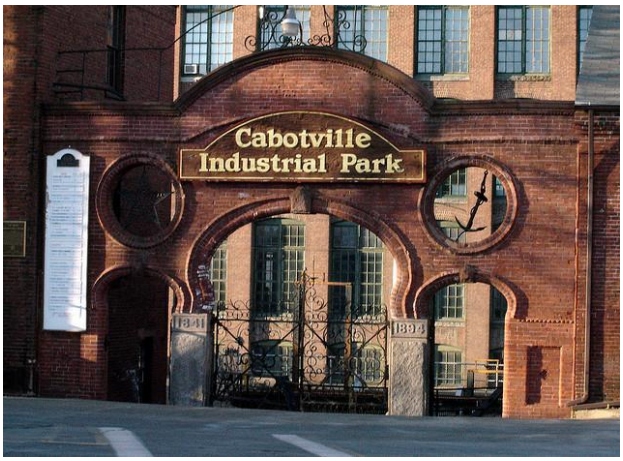
Source: http://goo.gl/maps/SHIU

Figure 8. **The 5 Seasons Westside Brewery in Atlanta's West Midtown Neighborhood.**

Source: http://soulsesssionsvolume5.eventbrite.com/

As illustrated by 5 Seasons in Figure 8, the primary pedestrian entrance for each building should serve the street, as opposed to a private parking lot (Leigh et al., 2012). Likewise, buildings should not be separated from the street by an expanse of parking, but should instead create a relatively continuous edge of storefronts, giving pedestrians the sense of enclosure in an outdoor room (ibid). Components of businesses that generate pedestrian traffic and interest (such as retail, showrooms, and exhibited production processes) should front on and activate the street, while less active, less visually intriguing, and more security-intensive uses can be located elsewhere on the block (Field Paoli and City of San Jose, 2010; Leigh et al., 2012). Neighborhood gateways, signage, and branding should foster community identity and pride of place while also aiding navigation (Leigh et al., 2012)

Figure 9. **Cabotville Industrial Park Gate in Chicopee, Massachusetts.**



Source: Courtesy of http://www.flickr.com/photos/graphikartkid/377129045/

Large industrial buildings should be brought into a more intimate, pedestrian scale through the use of façade elements such as articulations and modulations; shading devices; and changes in color or texture (Field Paoli and City of San Jose, 2010; Leigh et al., 2012).

Figure 10. **Pedestrian-Friendly Industrial Buildings.**

Color variations, architectural modulations, and shading devices can reduce the perceived scale of large buildings.

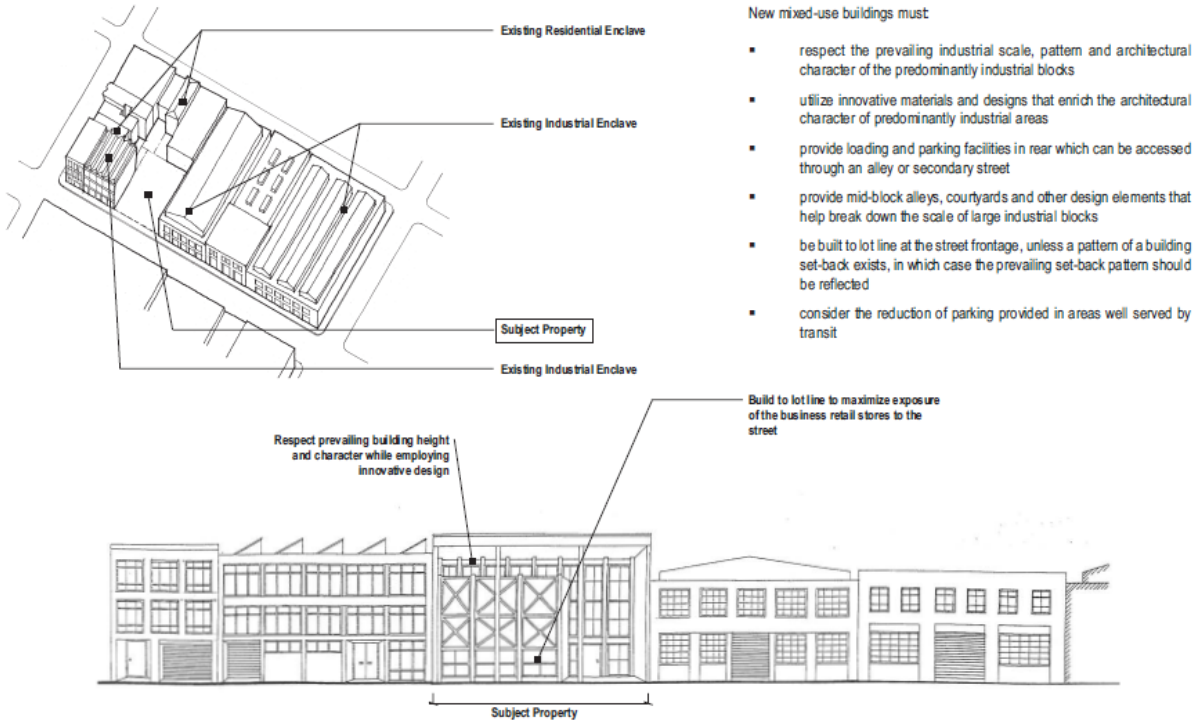
Transparency in industrial buildings can showcase activities and contribute to the high-tech character of North San José.

Different façade materials and shapes can transform even large production and distribution facilities into interesting architecture.

Image and Caption Source: Field Paoli and City of San Jose, 2010.

Many of Atlanta's industrially zoned areas contain a mix of buildings constructed over multiple generations. Mixing classical, vernacular, and modern architectural styles can add character and visual delight to a neighborhood, so long as these stylistic variations are brought into harmony through consistent proportions and scale, as demonstrated in Figure 11 on the next page (Leigh et al., 2012).

Figure 11. **Mixed-Use Building in an Industrial Context.**



Source: City and County of San Francisco, 2001.

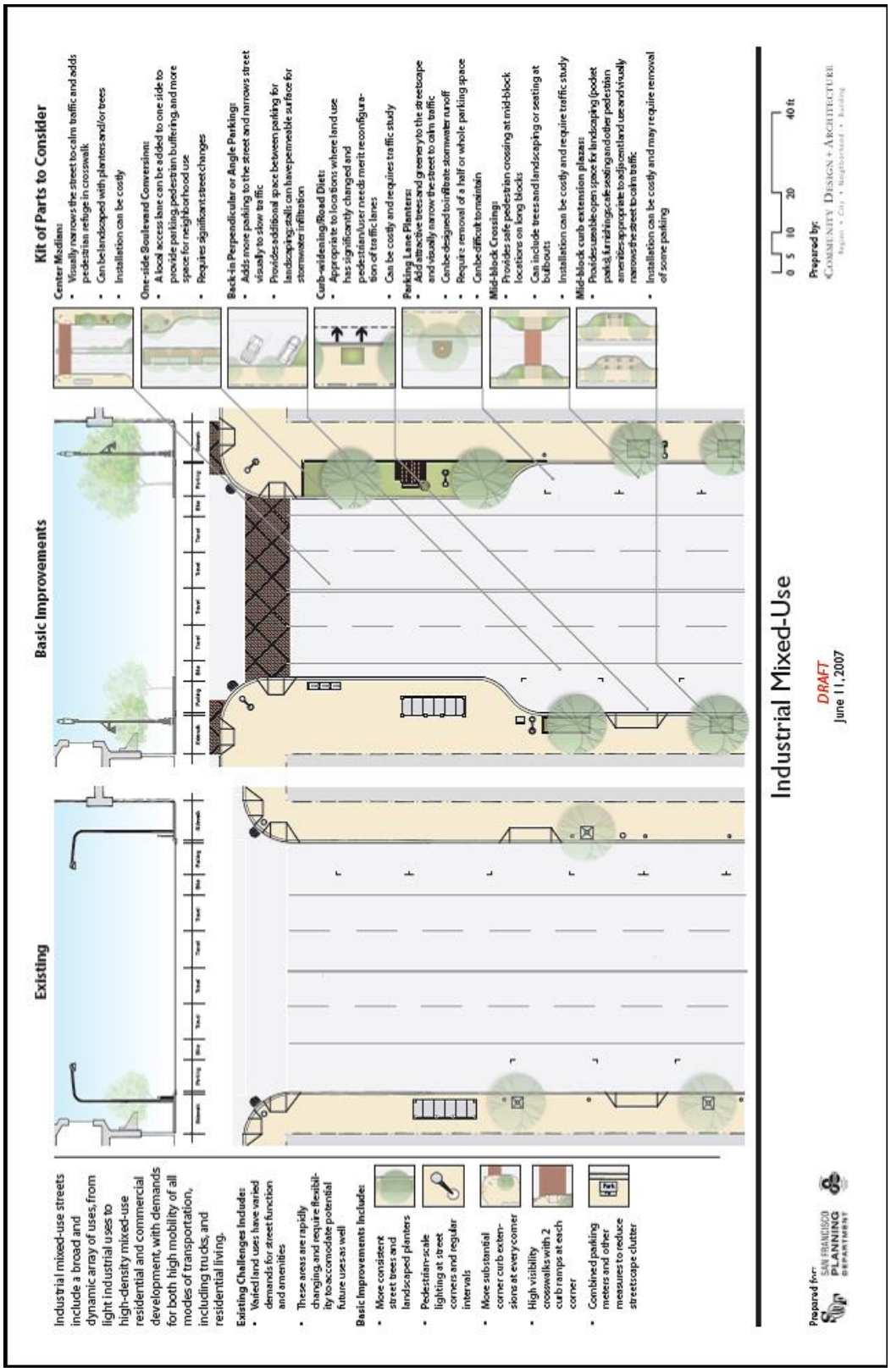
Loading docks and storage areas should be screened from the street with functional and attractive visual and noise barriers, utilizing materials such as timber, masonry, and vegetative walls, as well as visually engaging surface treatments such as murals, mosaics, and bas-relief (Leigh et al., 2012; see U.S. DOT, 2012).

Figure 12. **A Vegetative Visual Screen and Noise Barrier.**

Source: http://www.woollypocket.com/case-study/smog-shoppe-case-study

Non-industrial uses should front onto pedestrian-focused streets, alleyways, or courtyards, with industrial loading docks oriented toward a heavier freight route or the core of the block (Asian Neighborhood Design, 2007; Leigh et al., 2012). The City of San Francisco's industrial mixed-use street guidelines (see Figure 13) depict a variety of interventions designed to balance the needs of pedestrians, private and commercial drivers, and cyclists.

Figure 13. **Industrial Mixed-Use Street Guidelines.**



Source: City of San Francisco, 2007

To support a pleasant pedestrian environment and a robust street grid, most blocks can and should be relatively small (with block faces roughly 200 to 400 feet in length). However, some moderately sized blocks are necessary to accommodate a flexible range of light industrial uses, creating an adaptable industrial business environment. Block faces of 600 feet in length provide more flexibility for modern, light manufacturing floorplans, employee parking, loading, and truck staging (Leigh et al. 2012). The occasional 1,000 foot long block face vastly expands the range of modern light industrial uses and the size of potential tenants; in these cases, midblock passageways or "paseos" can preserve the integrity of the pedestrian and bicycle network (Field Paoli and City of San Jose, 2010; Leigh et al., 2012).

Block faces of 400 to 600 feet or more also "provide greater capacity to wrap large industrial spaces with retail; to provide ground-level lobby space for other land uses on higher floors; or to design courtyard or podium configurations, with both mixed-use towers and single-story, light industrial uses on a single block," (Cotter, 2012). Such a building configuration should allow longer ceiling spans for the industrial uses and greater floorplan autonomy for each of the mixed-uses on the site, while also reducing sound- and vibration control costs (ibid).

These larger, new construction projects will have a greater capacity to attract large tenants, while microenterprise is generally more able to adapt to the idiosyncrasies of historic building retrofits (Fowler, 2012; Cotter, 2012). Likewise, retrofits can more easily offer the lower rents generally affordable to these smaller businesses (ibid). Still, mission-oriented developers may find tools like deed restrictions, community land trusts, and inclusionary zoning helpful in achieving and preserving the desired mix of land uses and rents (Davis, 2006; Cotter, 2012).

No matter how carefully industrial tenants are selected, effective noise and vibration control will help reduce the risks associated with mixed-use industrial development. In addition to wrapping pipes, sealing connections, and shortening floor spans when possible (Cotter, 2012), building structured parking above ground-floor industrial uses will help buffer any potential negative impact on other uses in the development. Carefully crafted legal covenants will help define expectations and reduce land use conflicts not addressed through physical design (Cotter, 2012; see Weissman, 2000).

The movement known variously as "New Urbanism," "smart growth," and "transit-oriented development" has made great strides in the last 40 years. What was once impossible to finance (not to mention illegal) has now attained status as a "best practice" in the field of urban planning. Aside from isolated successes, however, two key elements of a balanced and functional society are conspicuously absent from the "smart growth" movement: affordable, workforce housing (Talen, 2010) and industrial land uses (Leigh & Hoelzel, 2012; Schweitzer, 2012). As rising fuel prices add to the disproportionate pressure on low-income households, and as American manufacturing gains renewed political and economic traction, it is well past time to connect the dots. The time has come to bring the benefits of transit-oriented development to the working class.

The next section of this report explores the feasibility of the affordable urbanism concept in Atlanta, moving from market analysis and development strategy to site selection, and concluding with a development proposal for transit-oriented, mixed-income housing and light industrial space.

Metro Atlanta Market Analysis

Economic Outlook

History of Adversity & Rebirth

The Atlanta metropolitan statistical area (MSA) is faced with formidable barriers to growth – high unemployment, infamous traffic congestion, scandals in our public schools, a pandemic of foreclosures and underwater mortgages, and endless disputes with neighboring states over our future water supply. Yet, there are reasons for hope. Atlanta has a long history of civic boosterism, innovation, and rebirth. After the Civil War, Atlanta's rebirth as a center of distribution and commerce was a strategic necessity for the new south, and for mending the country as a whole. After the Arab oil embargo, investments in the Hartsfield Jackson International airport helped lay the groundwork for the booming "Hotlanta" of the 1980s. The Olympic bid helped pull metro Atlanta into a new era of prosperity after the savings and loan crisis.

A Boom without Prosperity

In the boom times of the eighties, the nineties, and the early 2000s, Atlanta outpaced the national rate of employment growth, and in the first two of those booms, Atlanta had exceptionally low unemployment rates and high per capita income (Haddow, 2012). Yet in the boom of the early 2000s, unemployment was equal to the national level, and metro Atlanta's per capita income fell behind (ibid). Metro Atlanta averaged 60-65,000 housing starts per year from 2000 to 2006, but lacked underlying demand (ibid).

Recovering from the Great Recession

Atlanta was hit particularly hard by the Great Recession due to overproduction of housing, poor underwriting criteria and exposure to subprime loans regionally, and a reliance on temporary construction-related jobs to fuel population growth. The loss of these jobs, combined with local births, in-migration, and retirements, created a jobless population boom. Metro Atlanta's recovery has been stymied by high unemployment, foreclosures, and homeowners trapped in underwater mortgages.

Economic Base

As shown in Table 5 on the next page, the Atlanta MSA lost 181,000 non-agricultural jobs between 2007 and 2010, resulting in a net gain of only 10,700 jobs between 2000 and 2011. Over this 11 year period, the only industries to experience net job creation were education and healthcare services (+93.7K/+3%), government (+42.6K/+1.2%), leisure and hospitality (+27.3K/+1.1%), other services (+4.9K/+0.5%), and business and professional services (+5K/+0.1%). Government employment has been declining since 2009, but all other industries appear poised for at least modest growth.

As Figure 14 illustrates on page 21, the Atlanta MSA has a relatively diversified economic base. From 2000-2007, the dominant industries were professional and business services, government, and retail, followed by manufacturing, leisure and hospitality, and education and health services. Going forward, professional and health services will retain their importance, but education and health services will eclipse government due to strong growth in the former and ongoing decline in the later. Retail and leisure and hospitality services should retain their intermediate position.

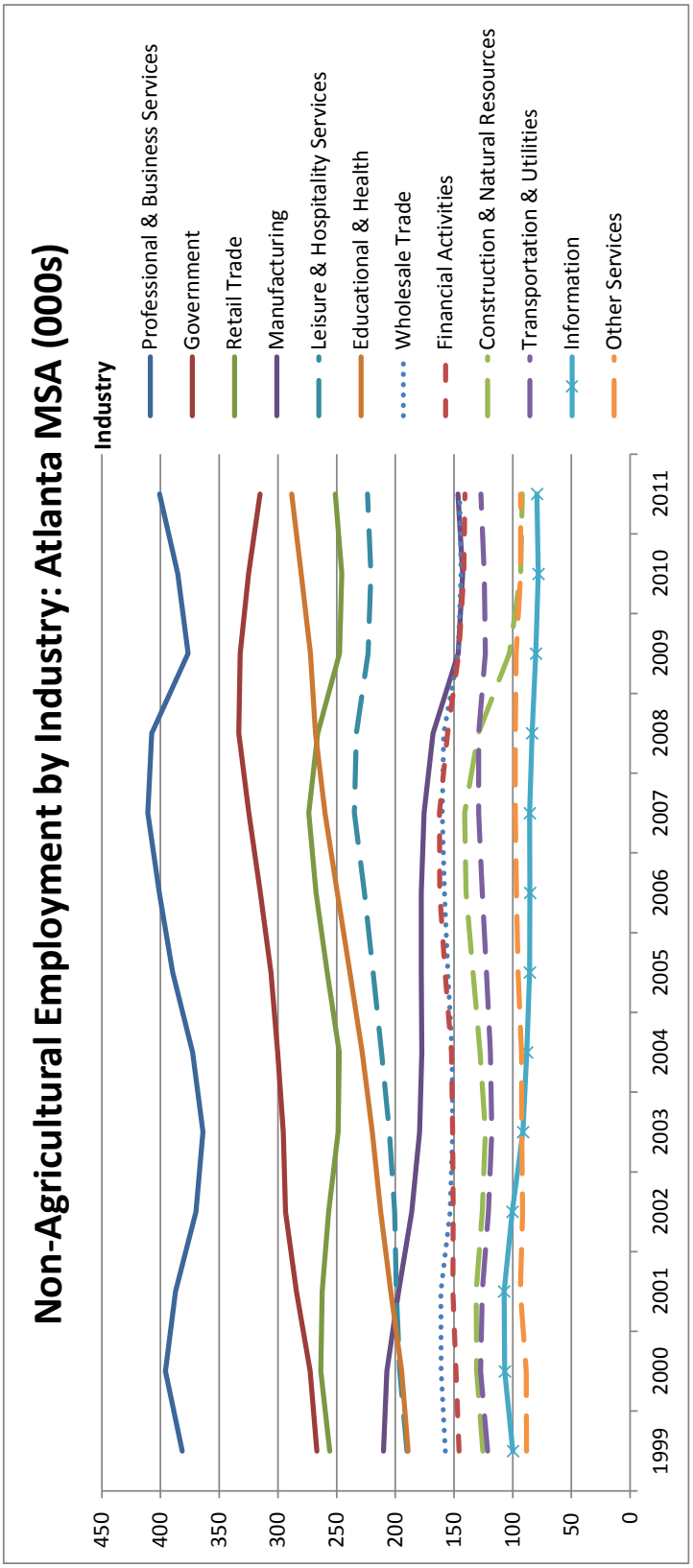
Table 5. **Metro Atlanta Employment by Industry: 2000-2012 (000s).**

NON-AGRICULTURAL EMPLOYMENT BY INDUSTRY
ATLANTA MSA
2000-2012
(000s)

Industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	% of Total 2011	Annual Percent Change 2000 - 2011
Manufacturing	210.1	207.2	197.1	186.0	179.2	177.5	178.0	178.0	175.5	167.8	146.3	142.7	146.6	6.4%	-3.8%
Construction & Natural Resources	125.5	130.7	131.2	125.9	123.2	127.8	133.8	139.8	141.0	129.2	102.8	93.3	91.8	4.0%	-3.9%
Transportation & Utilities	121.3	127.3	125.9	120.7	117.7	119.1	122.3	126.0	128.9	128.9	123.3	124.2	127.1	5.5%	0.0%
Wholesale Trade	157.3	160.9	161.1	153.4	151.1	151.6	155.2	158.2	160.0	158.7	146.4	144.0	145.3	6.3%	-1.0%
Retail Trade	255.8	263.4	262.4	256.7	248.8	247.7	258.0	267.6	273.8	266.0	247.5	245.5	251.0	10.9%	-0.4%
Information	99.9	106.8	107.4	100.3	91.3	87.9	85.6	85.3	85.6	83.5	80.3	78.2	79.3	3.4%	-3.2%
Financial Activities	145.6	148.4	150.9	150.7	151.1	152.1	157.5	162.2	162.5	155.5	146.0	141.7	140.6	6.1%	-0.5%
Professional & Business Services	381.4	395.8	387.2	369.7	363.8	372.7	389.7	401.0	410.9	407.4	376.5	385.4	400.8	17.4%	0.1%
Educational & Health Services	189.1	194.5	203.9	212.5	219.6	228.2	238.7	249.5	259.8	268.0	272.3	280.2	288.2	12.5%	3.0%
Leisure & Hospitality	190.0	196.3	199.2	200.6	205.0	211.8	218.9	226.4	234.9	233.3	223.2	220.8	223.6	9.7%	1.1%
Other Services	88.2	88.4	93.5	91.5	92.3	92.6	95.4	96.8	97.8	97.8	97.0	93.2	93.3	4.1%	0.5%
Government	266.9	272.6	284.1	293.4	295.5	300.3	305.8	314.9	324.7	333.3	332.1	324.9	315.2	13.7%	1.2%
Total	2231.0	2,292.2	2,303.9	2,261.2	2,238.7	2,269.0	2,338.7	2,405.7	2,455.4	2,429.4	2,293.9	2,274.0	2,302.9	100.0%	0.0%
Employment Increase	---	61.2	11.7	-42.7	-22.5	30.3	69.7	67.0	49.7	-26.0	-135.5	-19.9	28.9	---	---
Percent Increase	---	2.7%	0.5%	-1.9%	-1.0%	1.4%	3.1%	2.9%	2.1%	-1.1%	-5.6%	-0.9%	1.3%	---	---
Unemployment Rate	3.0%	3.1%	3.6%	4.9%	4.8%	4.7%	5.3%	4.7%	4.6%	6.2%	9.8%	10.2%	9.6%	---	---

Note: The Atlanta MSA was expanded to 28 countries in February, 2004. Historical data have been revised to reflect the expanded area for analytical purposes.
Data source: U.S. Bureau of Labor Statistics

Figure 14. **Metro Atlanta Employment by Industry: 2000-2012 (000s).**



Data source: U.S. Bureau of Labor Statistics – Current Employment Statistics (CES)

Manufacturing lost 60,600 jobs from 2000 to 2011, but rising foreign wages, commodity prices, and currency valuation are making the U.S. more attractive for high value-added manufacturing operations (Ferreira & Prokopets, 2009), and Atlanta's industrial sector will see a boost from the widening of the Panama Canal (Kozloff, 2012). Therefore manufacturing, wholesaling, and transportation and utilities may gain in job share going forward.

Business Recruitment & Expansion

Metro Atlanta's aggressive economic development groups and award-winning workforce training programs such as Georgia Quick Start offer a ray of light going forward. The Metro Atlanta Chamber of Commerce projected some major expansions of local businesses from 2011-2014, including the Rock-Tenn headquarters (500 jobs), a WellStar hospital and office complex (500 jobs), a Lockheed Martin plant (400 jobs), and a Delta training center (400 jobs). Major relocations of outside facilities include a Home Depot call center (700 jobs), a Mando auto parts plant (426 jobs), a FedEx distribution center (315 jobs), a Round 2 computer equipment distribution center (260 jobs), and an Asurion software development center (250 jobs).

Regional Assets

Metro Atlanta is the home of 13 Fortune 500 Companies, the 3rd most of any city I the nation. As the national market recovers, Metro Atlanta's warm climate, low cost of living, and low cost of doing business should continue to attract workers and businesses. The region benefits from one of the nation's strongest inland ports; the world's busiest airport; multiple consulates and international chambers of commerce; and world-class convention facilities, educational, research, and healthcare institutions. In addition, Atlanta is the birthplace of Martin Luther King, Jr., a cradle of the civil rights, and has been described as a "black Mecca." All of these factors will benefit the region going forward.

Demographics & Catalytic Investments

Fulton County added nearly 105,000 residents from 2000-2010, and should continue to benefit from the increasing popularity of intown living, particularly as fuel costs continue to rise, tragic congestion continues to worsen, and the millennial and baby boomer cohorts enter life stages favoring small household formation and convenient access to urban jobs, higher education, and healthcare. Fulton County will also benefit from major public investments in transportation and quality of life, including the BeltLine, the Atlanta Streetcar, the Multimodal Passenger Terminal, and the Fort McPherson redevelopment.

The Metro Atlanta Apartment Market

Strong occupancy and rising rental rates in Metro Atlanta's apartment market indicate a potential development opportunity. However, recent luxury apartment deliveries point to the threat of overbuilding in the upper ranges of the market.

Apartment Demand without Job Growth

Although job growth in the City of Atlanta has been almost nonexistent, intown apartment demand has been fueled by a variety of economic, demographic, geographic, and cultural factors. First, certain intown neighborhoods such as Midtown, Buckhead, and the Virginia Highlands offer urban amenities, relative safety and cleanliness, and an escape from traffic congestion and long commute times via proximity to educational institutions and *existing* jobs. These neighborhoods are also located near a fairly high concentration of jobs in the few industry sectors that have experienced isolated growth in the Atlanta MSA over the last ten years, particularly educational and health services (+3.1% per year), leisure and hospitality (+1.1% per year), and government (+1.6 per year), (see figures on pages 21 & 22).

Looking forward, rental demand in these areas should continue to benefit from proximity to the current growth sectors of professional and business services, education and health services, retail, and leisure and hospitality. The importance of good schools should not be written off as a component of multifamily housing demand, particularly given tight underwriting criteria, squeezed budgets, and changing sensibilities about homeownership. For this reason, markets such as central Decatur and Oakhurst are not to be overlooked.

As gas prices continue a long-term upward trend, multimodal transportation access (transit, walking, biking, automotive, etc.) will increasingly drive demand. All other location factors held constant, this trend will benefit neighborhoods convenient to MARTA, the BeltLine, and the Atlanta Streetcar. Redeveloping intown areas with trendy retail and nightlife scenes also have strong growth potential, including West Midtown, East Atlanta Village, and Auburn/Edgewood. Perceived safety is an important issue, however. These factors all interact to determine the most preferred locations for apartment development.

Push & Pull Factors: The Foreclosure Crisis & Intown Living

From 2000 to 2010, the City has experienced population growth of only 3,529 (353 residents or +0.1% per year); yet the total number of households has shot up by 16,995 over those ten years (+1% per year), with the average size of households decreasing from 2.30 to 2.11 (-0.9% per year), (Haddow & Company, 2012a). Over the same period, one person households have increased by 16,896 (+2.3% annually) and nonfamily households have increased by 19,784 (+2.1% annually).

It would be overly simplistic to justify the production of rental housing based upon the assumption that Atlanta's increased share of one-person- and nonfamily-households equates to a higher percentage of prospective renters. The demographic changes in Atlanta over the last decade can be accounted for by two major factors – first, by the profusion of new condominiums in Midtown, Buckhead, and other revitalizing intown neighborhoods, and the attraction of relatively high-income, educated individuals into these units. Second, the subprime mortgage crisis and the resulting pandemic of foreclosed single family homes has pushed many families out of predominantly working class, African American neighborhoods in west and south Atlanta.

This push/pull explanation of Atlanta's recent demographic changes is corroborated by the City of Atlanta's shift in household income, educational attainment, and racial composition. Households making $75,000 or more per year increased from 22.7% of all households in 2000 to 33% of the total in 2010 (Haddow & Company, 2012a). In the same period, the share of residents with a bachelor's degree or higher rose from 34.7% to 49.9% of the city's population (ibid). Finally, the city's population shifted from 33.2% white and 61.4% black in 2000 to 38.4% white and 53.9% black in 2010 (ibid).

Further support for this narrative is lent by a survey of condominium owners in intown Atlanta, conducted by Haddow and Company between 2001 and 2005 (2012b). Almost sixty percent of the respondents were one person households, and over eighty percent were Caucasian. Over fifty percent of the 798 responding households earned over $100,000 per year, which suggests that intown condo ownership in recent years has been motivated by a lifestyle preference, rather than the traditional motive of an inexpensive alternative to single family homeownership.

This lifestyle preference may be attributable to the desire to live an "urban lifestyle" near amenities like dining, nightlife, and cultural and educational institutions. Unfortunately, the allure of the urban lifestyle does not appear to include using transit for condominium buyers, as only 22.2% of the respondents take MARTA to work even occasionally. There may be a subset of these well-heeled individuals who would prefer to rent as a lifestyle choice, in order to maximize their mobility and avoid the commitments associated with ownership. However, it would be foolish to invest heavily in the perceived trend of the "rental nation" or "sharing economy" (Wolverson, 2012) without conducting some consumer surveys specific to the proposed product and submarket. This is particularly true given the recent overbuilding of condominiums in Atlanta, and the potential competition with condominiums to attract this consumer profile.

The wiser bet is the less saturated workforce housing market. In addition to the lower threat of overbuilding in this market, these individuals generally have lower rates of car ownership and higher rates of transit ridership (Hickey et al., 2012). As a result, proximity to MARTA is a more attractive benefit for these consumers.

The Metro Atlanta Industrial Market

Overview

Metro Atlanta is one of America's largest "inland ports" and hosts the world's busiest airport. Atlanta contains approximately 600M SF of industrial space (Brannen Goddard, 2012; King Industrial Realty, 2012), making it the fifth largest industrial market in the United States (Fitzsimmons, 2012). Located at the juncture of major north-south and east-west railways and highways and in close proximity to major southeastern ports, the Atlanta-Sandy Springs-Marietta MSA is home to 5.5 million residents. Metro Atlanta is one of the top five markets for optimizing one day truck service to 85% of the U.S. population (Fitzsimmons, 2012). Historically and currently, Atlanta's role as a distribution hub has been one of the core drivers of the city's growth, facilitated by a supportive business environment and infrastructure investments that leverage the city's strategic location.

Catalytic Infrastructure Investments

The latest investments supporting industrial growth in Atlanta are the recent expansion of the Hartsfield-Jackson Atlanta International Airport and the widening of the Panama Canal, scheduled for completion in April of 2015 (Panama Guide, 2012). In due course after that date, as much as 25% of the cargo currently offloading on the West Coast will instead pass through the canal (Kozloff, 2012). The majority of this traffic will transship at Panamax hubs in the Caribbean, ultimately servicing East Coast ports via smaller vessels (Bartholdi, 2012). Industrial real estate interests in East Coast port cities and strategic distribution hubs like Atlanta stand to benefit from the combination of currently depressed property values, future appreciation, and external public and private investments (Kozloff, 2012).

Metro Outlook

Atlanta's recovery is lagging both the national average and that of the other major industrial markets: New Jersey, Southern California, Dallas, and Chicago (Fitzsimmons, 2012). Slow industrial absorption has been the trend in many of the markets like Atlanta that were hit hard by the subprime mortgage crisis, including South Florida, Los Angeles, Inland Empire, and Northern California, (Perkins, 2012). Still, at the close of Q4 2012, Metro Atlanta's industrial vacancy dipped below the 10 year historic average at 12.2%, showing signs of tightening demand (Jones Lang LaSalle, 2012). Rents hovered at $3.04, unchanged from the last quarter (ibid). Absorption reached 7.7 million square feet, still a far cry from the peak of 15 million square feet in 2007.

Atlanta saw the first glimmer of new speculative development midway through 2012, mostly attributable to IDI's 653,484 SF delivery in Lithia Springs (King Industrial Realty, 2012). As vacancy rates continue to fall and rents rise, speculative development should gain headwinds in 2013 and 2014, due to relatively low interest rates and inexpensive land, building materials, and construction materials (ibid).

Ultimately, the size of Atlanta's local and regional market as well as its existing logistics infrastructure and proximity to quickly growing coastal ports (Fitzsimmons, 2011a) will serve the area well (Fitzsimmons, 2012)., although growth in other regional economic sectors will be necessary to spur industrial demand.

Central Atlanta Submarket Outlook

The Central Atlanta submarket has attracted scant new development in the last 15 years, due to high land prices relative to attainable rents. In addition, tenant attraction has suffered from high tax and utility rates and poor K-12 schools. Central Atlanta saw YTD absorption of -56,275 in Q4 of 2012, with a total inventory of only 9,825,982 square feet (ibid). Flex/R&D rents are the highest in the Metro, averaging $14.49 in Central Atlanta, compared to $7.68 Metro-wide (ibid). However, this property class saw YTD net absorption of -62,100 square feet in Q4 of 2012 (ibid).

The central city's combination of strong educational institutions and its growing bioscience sector, its urban amenities and quality of life, and the city's urban planning priorities and financial incentives, may present opportunities for the development of new, urban R&D space near institutions like Georgia Tech and Emory. The City of Atlanta has received a pilot grant from the EPA to conduct area-wide brownfield planning to spur the reuse of industrial land in southwest Atlanta. Meanwhile, the Metro Atlanta Chamber of Commerce is working with key partners to expand start-ups and

recruit U.S. based operations for foreign companies in target industries like advanced manufacturing, technology, bioscience, and health IT (Gant, 2012). The Chamber and its partners are also exploring the creation of a new urban zone to foster innovation and entrepreneurship (ibid).

The fourth quarter of 2012 saw significant demand for 30,000-100,000 square foot buildings, metro-wide (ibid). If this trend continues, it could bode well for urban, multitenant development, which tends toward smaller parcel and building sizes. In particular, an overlooked opportunity may exist to create industrial work settings that leverage the quality-of-life improvements occurring along the BeltLine and near MARTA station redevelopments.

Urban Industrial Property Types

Research & Development

Summary: The Advanced Technology Development Center (ATDC) is a startup accelerator based in Georgia Tech's "Tech Square" and serving technology companies throughout Georgia. For Atlanta to compete with innovation centers like Austin and the Research Triangle, it is strategically important to retain the startup companies that graduate from ATDC. ATDC's Interim Director believes the incubator's graduates could absorb and sustain 100,000 -150,000 square feet of new space immediately. However, the existing R&D space at Tech Square is dependent on a subsidy from the State of Georgia that has recently been cut in half. For the time being, Georgia Tech is backstopping that cost. Neither public funding nor Institute commitments are likely for additional R&D space at Georgia Tech, at least in the short term. Parts of Midtown and West Midtown within walking distance of Georgia Tech have all the fundamental demand drivers to support a growing R&D cluster, but market rents for R&D space are not high enough to cover the cost of land in Midtown, unless a subsidy is involved. A third-party developer could deliver new R&D space by taking advantage of the lower cost of land in West Midtown, but that area lacks convenient transit access (a critical component of Affordable Urbanism).

Land Costs & Necessary Rents: Land in Midtown costs roughly $150-$200 per square foot, necessitating $25-$30 per square foot rents, assuming inexpensive construction techniques. Georgia Tech has higher standards for its campus. As a result, the existing R&D space at Tech Square has an operating cost of $30/s.f. Rents for R&D space in Tech Square range from $16.50- $20 per square foot ($28-$34 per square foot including CAM charges). These rents are insufficient to cover Georgia Tech's costs. (The Institute absorbs the cost overruns to advance larger goals.)

Demand Drivers:

ATDC Graduates: The Advanced Technology Development Center (ATDC) was founded in 1980 and is headquartered in Technology Square, on Georgia Tech's Atlanta campus. ATDC occupies 40,000 s.f. (including 15,000 s.f. of wetlab space) on 1 floor of the Centergy building. At any given time, ATDC hosts 35-40 startup companies in its 3-4 year incubator program. These companies are in the "software to service" business, healthcare, financial services, and wireless technology.

Upon graduation, companies generally produce $1M+ in revenue and have 15 to 20 employees. ATDC must maintain enough space on the floor for its new startups, but when companies graduate from the incubator, they often do not wish to leave. ATDC provides 125-200 square feet per person, bandwidth, and conference rooms. Comparable R&D spaces are available elsewhere in the City and the Metro for lower rents, but these spaces lack the benefits of Georgia Tech's technology cluster.

The Technology Cluster: Proximity to Georgia Tech offers startup companies access to:

- Talent (professors & students)
- Research (data access, intellectual rights, research contracts, etc.)
- Equipment (for batch production of prototypes, etc.)
- A social & intellectual network
- A safety net (when startups fail, engineers are often rehired to other projects)

Leasing Strategy:

Startups are volatile, so flexible, short-term lease agreements will be a key marketing requirement. Given the probability of high tenant turnover, ATDC will provide a critical pipeline of new referrals. Until a stable base of core tenants is established, the incubator's continued funding and viability should be a major concern.

Land Cost/Transit Access Trade-off:

Land costs in West Midtown run about $40 per square foot, making industrial rents more viable. The southern end of the Marietta Street corridor is less gentrified and offers more development opportunities. Certain locations there offer convenient access to the Tech Trolley and Stinger, although MARTA and the BeltLine are not within convenient walking distance.

Artisanal Manufacturing

Summary:

Initially, industrial real estate brokers and developers in metro Atlanta tend to be dismissive of the concept of urban light-industrial development. Interviewees note the metro's ready supply of cheap suburban land, offering:

- Excellent highway access for regional, national, & international distribution
- Relief from urban traffic congestion
- Larger plots of developable land
- Lower utility costs and tax rates (notably, 100% freeport exemption vs. 20% in Atlanta)
- Better public schools

However, there is growing interest among economic developers in creating new financing tools and incentives to overcome these challenges, not only to curb the loss of high-wage manufacturing jobs in the city, but also as a way to encourage smart growth in the wake of the failed T-SPLOST transportation referendum. Two of the real estate developers and one economic developer interviewed are optimistic about niche opportunities in small-scale food production and quasi-retail, artisanal manufacturing.

Build-to-Suit Food Processing

The author interviewed a developer of build-to-suit food processing facilities. These facilities tend to be highly specialized, meaning that if the business leaves, the building will be costly to adapt to another user. For the proposed development, this after-market risk must be weighed against two factors: (1) the ability to create high-quality jobs, and (2) the ability to attract industrial businesses that can afford the higher land, utility, and tax costs in the City.

A 40,000 square foot, urban-format cereal factory can employ 130 workers – predominantly on the production line (Chesters, 2012). What is equally important is that transportation cost savings and

marketing advantages can sometimes justify the higher costs of urban, build-to-suit food processing plants. Of course, only certain food processing businesses will be appropriate in an urban context, due to nuisance factors such as smells. Successful examples of urban food factories include the 40,000 square foot Classic Foods pasta factory in Portland, Oregon (Macht, 2012) and the 40,000 square foot Dorset Cereals factory in the neotraditional hamlet of Poundbury, England (Chesters, 2012; Dorset Echo, 2008; Goadsby, 2005). Kept near or below a 50,000 square foot scale, Fulton County's growth sectors of cookie, cracker, pasta, chocolate, and beer manufacturing are all low-nuisance land uses.

Due to food processing facilities' specialized requirements (e.g. drains in the floor, clean rooms, etc.), spaces are more compartmentalized than in other light manufacturing buildings, and construction costs can be high. Combined demolition/site preparation and construction costs often reach $300/square foot (assuming cast-in-place, insulated concrete, steel frame construction). Equipment costs are generally in the range of 50% of the total development cost, such that a 50,000 square foot facility would cost $22.5M ($15M + $7.5M). This figure does not include land acquisition costs. Typically, the budget for land acquisition is determined by the spread between the development costs and the plant's projected revenue, building in an allowance for a 3-5 year payback period. In the absence of reliable financial information from a committed tenant/buyer, land cost containment is critical.

Microbrewery

Creative Loafing reports that more than twelve microbreweries and brewpubs are currently preparing to launch in Metro Atlanta and Athens, nearly doubling the number of craft beer producers statewide (Ray, 2013). The article also mentions the proliferation of beer festivals in Atlanta (15 last year), another indication of the growing demand for craft beer. National craft beer sales doubled from 2007-2012, reaching $12B per year (ibid). Craft beer is gaining market share in Georgia as well, with a major opportunity to substitute consumption of out-of-state craft beers with local products. Discarding outliers like Portland and Denver, the San Diego MSA has 125 microbreweries and a population of only 3 million, providing some indication of the potential for growth in Metro Atlanta (ibid).

Creative Loafing profiled seven of Atlanta's emerging microbreweries. Their facilities will range in size from 3,000 to 12,000 square feet, and will be dispersed around Metro Atlanta (including Alpharetta, Chamblee, and Cherokee County), with one founder seeking a BeltLine location and several pursuing urban neighborhoods (Grant Park, Midtown, and Decatur), (ibid).

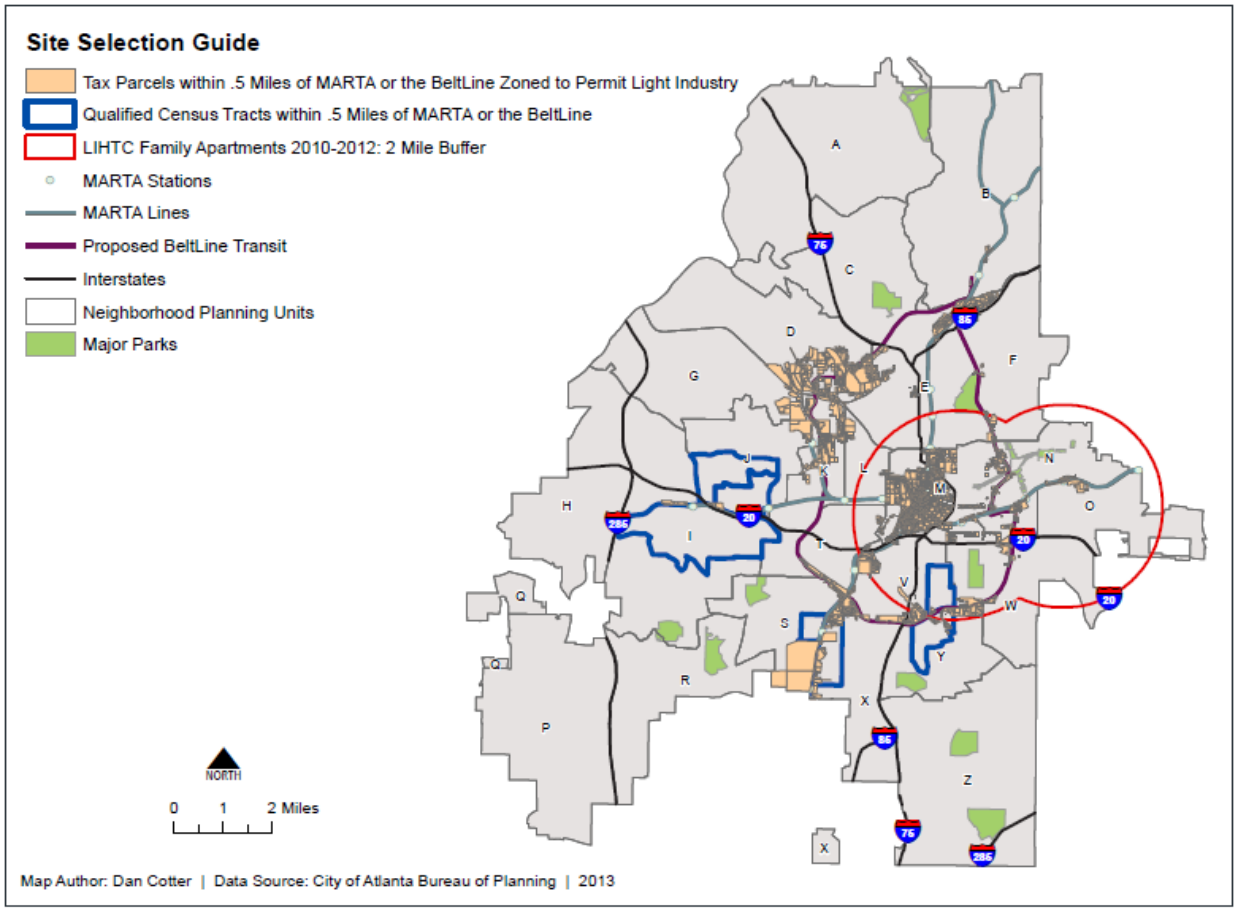
Site Selection

Site selection for the proposed development is driven by:

- Access to transit (MARTA or the BeltLine within ½ mile)
- Freight access (highways/truck routes/air cargo/freight rail)
- Appropriate zoning and surrounding land uses
- Current or potential demand for residential and industrial space in the submarket
- Feasible land and construction costs, given rent restrictions
- Eligibility for LIHTCs and other funding

For most Low Income Housing Tax Credit (LIHTC) projects, the location of qualified census tracts (QTCs) and difficult development areas (DDAs) is a prime consideration, since LIHTC funding receives a 30% "basis-boost" in these areas. The Housing and Economic Recovery Act of 2008 (HERA) gave state finance agencies the ability to grant a basis boost to high-cost projects such as transit-oriented developments (NLIHC, 2011), so it is less critical for a transit-oriented project to be in a QCT or DDA. However, in Georgia's cities, developments are generally ineligible for LIHTC funding if a LIHTC project catering to the same market (i.e. families or seniors) has been constructed within 2 miles of the proposed site in the past 3 years (Georgia Department of Community Affairs, 2013, p. 26). Of the 23 MARTA stations in the City of Atlanta, 16 (70%) are within this ineligible zone. Figure 15 illustrates the interaction of these site selection criteria.

Figure 15. **Site Selection Map.**

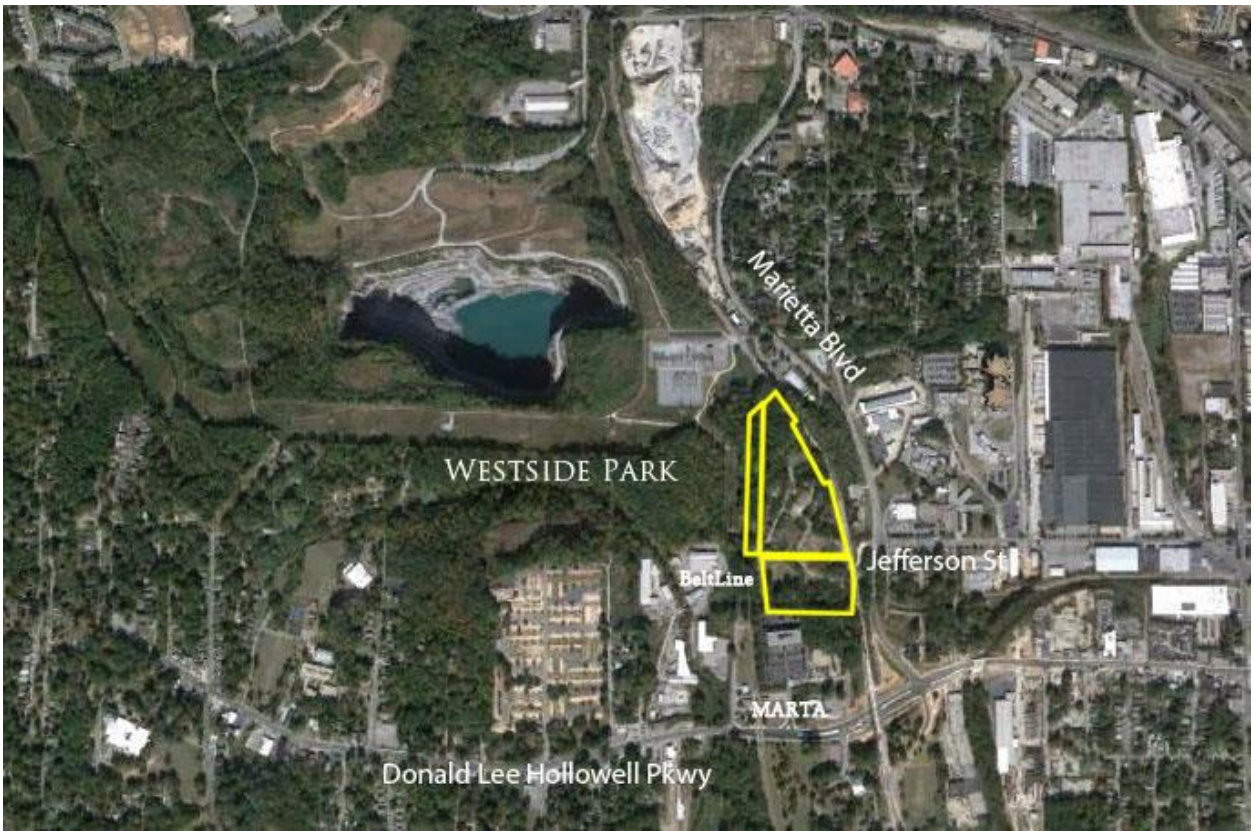


In addition to the factors outlined above, site size is a key consideration. Larger sites offer more opportunity to offset the low rents of the affordable rental and industrial spaces by including some market-rate housing and retail. Larger sites also offer more ability to create a catalytic project that can take advantage of low land costs while generating value from the site's unrealized potential.

Site Information: 762 Marietta Boulevard Northwest

The proposed development site is approximately 20 acres, and is located in northwest Atlanta, less than half a mile from the Bankhead MARTA station and just across the street from a planned BeltLine station (see Figure 16). Bankhead MARTA station is one of the most underutilized stations in the MARTA system, making the redevelopment of the area around the station strategically important for MARTA's ridership and financial viability. The proposed development site is also adjacent to the BeltLine's planned Westside Park (also known as the quarry park or reservoir park), which once completed, will be the largest park in the City of Atlanta.

Figure 16. **Proposed Development Site & Surroundings.**



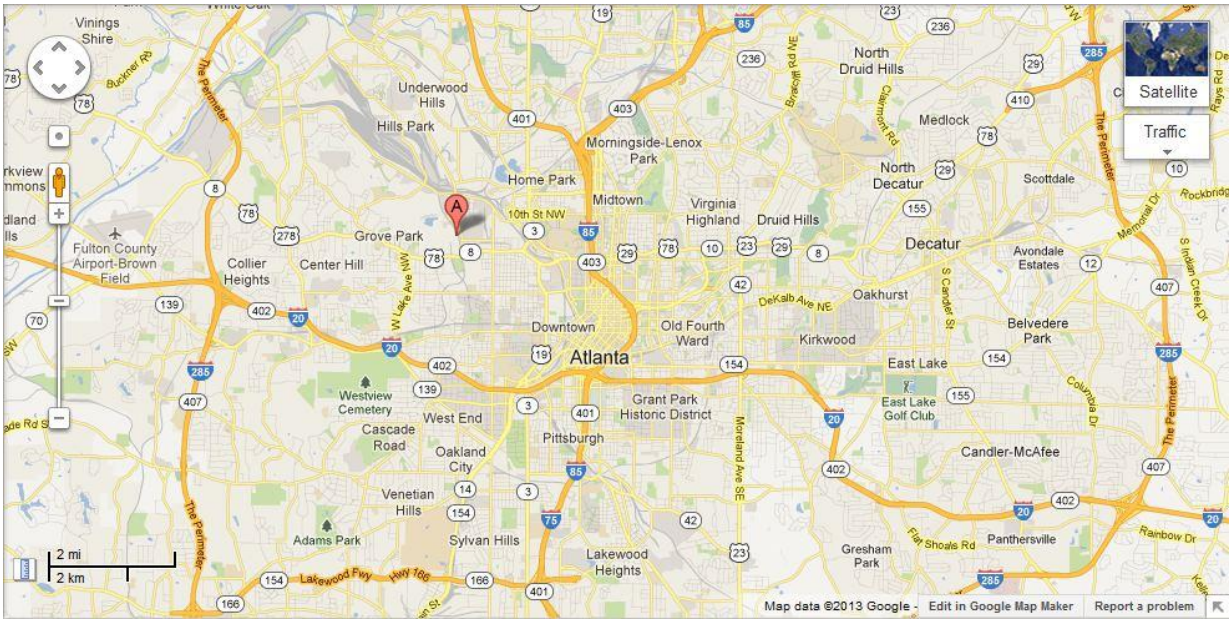
Source: Google, 2013

As a transfer point between MARTA, the BeltLine, and the Westside Park, the development site will see heavy pedestrian traffic, making the site suitable for neighborhood retail, such as eating and drinking establishments. The large, northeastern parcel is zoned Mixed Residential/Commercial (MRC-2), while the other two parcels are zoned Heavy Industrial (I-2) (see Appendix 2). The confluence of these land uses near transit, combined with the large size of the parcels, makes this site ideal for the development concept: transit oriented, mixed-income housing and light industrial space.

Moreover, the land in this area is relatively inexpensive, considering its intown location. King Industrial Realty is currently marketing these parcels for $800,000 per acre, (~$18 per square foot). This low cost will be essential, given the low rents associated with the proposed land uses. Bankhead is a high-poverty neighborhood, so developing mixed-income housing on the northern parcel provides the opportunity to preserve affordable workforce housing in the area while catalyzing redevelopment and improving the quality of life in the neighborhood. Meanwhile, the southern parcel provides an opportunity to demonstrate how light industrial development can contribute positively to a transit-oriented development, both in terms of employment opportunities and urban design.

The site is conveniently located minutes away from Georgia Tech, Midtown, Downtown, I-20, and I-75/85, as well as Inman Yards and the industrial clusters and support businesses of the Chattahoochee Industrial District (see Figure 17). It is also located in close proximity to the rapidly gentrifying West Midtown neighborhood, with its emerging arts scene, restaurants, and nightlife – providing an ideal juncture between industrial infrastructure and urban amenities.

Figure 17. **Neighborhood Context.**



Source: Google.com, 2013

The site is currently owned by a holding company, United Real Property. The nearest major crossroads are Donald Lee Hollowell Parkway to the south and Marietta Boulevard to the east. Jefferson Street runs to the east of the property, leading to the Fulton County Detention Center, a 125 bed homeless shelter, and the Atlanta Food Bank. A CSX rail line runs north-south, just to the east of the property. The site's previous owner, Cargill (the food processing company) maintained a rail sideline that runs diagonally into the site.

Before Cargill, AZS Chemical owned the site, leaving behind two contaminant ponds. A representative from King Industrial Real Estate commented that one of the ponds has been

remediated, and AZS Chemical is responsible for cleaning the second pond as well. A preliminary environmental assessment found that the site does not qualify for the National Priorities List, based on existing information (see Appendix 5). The site is deferred to the Resource Conservation and Recovery Act, under Subtitle C. Further determining the actual costs, liabilities, and timeline associated with this contamination will be critical to evaluating the feasibility of the development.

The site is in a New Markets Tax Credits-eligible tract, the BeltLine Tax Allocation District, and an Atlanta Renewal Community. While the site is not located in a Qualified Census Tract or Difficult Development Area according to the latest data from HUD, the site's brownfield issues and its proximity to transit could qualify it for a 30% basis boost. The Georgia Department of Community Affairs' 2013 Qualified Allocation Plan (QAP) awards 2 points for brownfield redevelopment and up to 3 points for transit accessibility. Since the proposed project supports these and other key objectives of the QAP, a discretionary basis boost could be justified to overcome related costs.

Proctor Creek bisects the northern parcel, dramatically reducing the developable land on this parcel and distorting the price of the land. LIHTC projects must not place any impervious surface within 100 feet of any wetlands or streams, further reducing the developable land. The BeltLine's Concept Plan envisions this northern portion of the site as a conservation area. If the BeltLine can purchase and steward this portion of the land, it will dramatically improve the project's financial viability.

Proposed Site Plan

The proposed site plan strives to honor the intent of the BeltLine Subarea 9 Plan (Atlanta BeltLine, Inc., 2009) and the Bankhead MARTA LCI (City of Atlanta, 2006), as well as the spirit of the new industrial policy under joint development by the BeltLine, the City of Atlanta, and Invest Atlanta (City of Atlanta, 20011; Lewis, 2012). In the image below, the proposed development parcels are superimposed in yellow over the BeltLine's Bankhead MARTA station Redevelopment Concept.

Figure 18. **BeltLine Planning Context.**

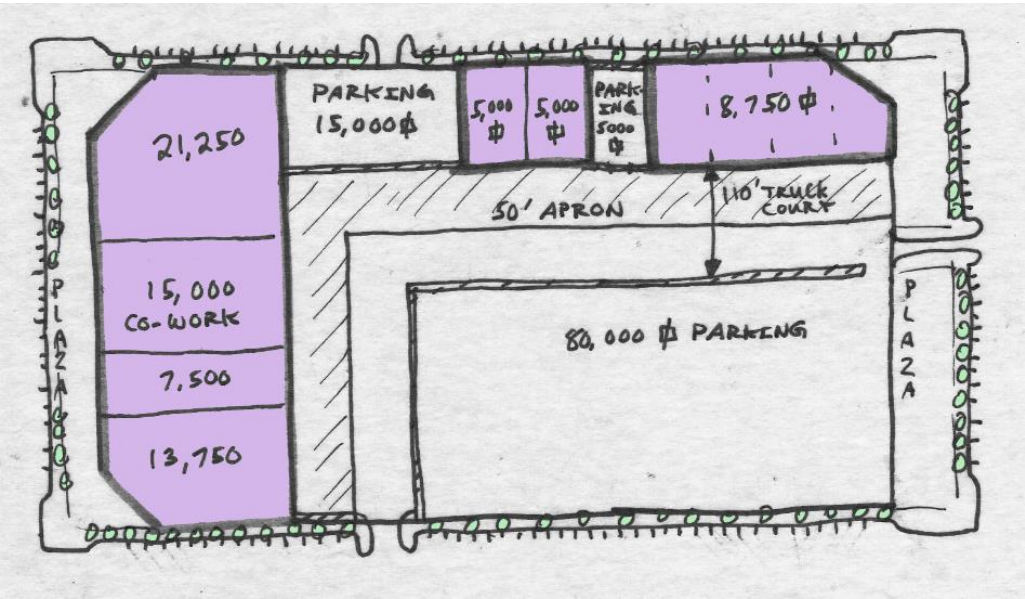
Source: Atlanta BeltLine Inc., 2009

The proposed apartments and retail ("Westside Station Apartments") will locate on the northernmost block (designated as "Northern Parcels" in the pro forma). Approximately 30,000 square feet of ground-level retail will front onto Jefferson Avenue, on the southwestern corner of the northern block. There will be three, 105 unit phases of LIHTC apartments, followed by a 162 unit market-rate apartment development.

There will be several differences from the BeltLine concept above, however. The buildings pictured in Figure 18 above encroach on the 100 foot creek buffer, which is not acceptable under LIHTC requirements. Also, the buildings will be 4 stories, in keeping with the actual MRC-2/BeltLine Overlay zoning. (The "mixed-use 10 story buildings" callout in Figure 18 is in conflict with the existing zoning, given the residential FAR cap. Likewise, the soft office market precludes additional commercial development.) The scale is also off on this image. North-south measurements are 15% smaller in GIS. The pro forma and site plans adjust for these differences.

The light industrial development will be located on the southernmost block indicated in yellow on the previous page. In the pro forma, this block is designated as "Southern Parcels – Westside Market." This area is zoned I-2. The development proposal envisions an approximately 80,000 square foot multitenant, light manufacturing facility. Portions of the facility up to 21,250 square feet could be built-to-suit for larger tenants such as pasta or cereal manufacturers (see "Interview Results: Build-to-Suit Food Processing"). As illustrated in Figure 19 below, the interior of the block will house ample, secure/gated truck courts (110 feet deep, including a 50 foot deep, reinforced concrete apron).

Figure 19. **Westside Market Concept Plan.**



Source: Author

The eastern and western faces of the block will feature outsized plazas/market spaces, which the industrial tenants offices and showrooms will front onto. Three thousand square feet of space is reserved for restaurants/bars, with an ideal opportunity for mixed retail/wholesale businesses such as microbreweries, coffee roasters, small bakeries, and confectioners. A fifteen thousand square foot co-work space/incubator/business office/marketing center anchors the middle of the western block face, directly across the street from the BeltLine's proposed station and the entrance to the Westside quarry park. The co-work space will offer small businesses a social network and economies of scale through shared office equipment and loading docks.

A large portion of the block is given over to parking, due to the requirements of the I-2 zone. The main surface parking lot is positioned to facilitate future conversion to structured parking or replacement with additional buildings, should the parking requirements be lessened in the future. Pocket parking lots on the northern face of the block are likewise available for infill, and scaled to promote walkability, operate as outdoor rooms, and foster a sense of exploration and discovery. Breaking the parking up into several distinct lots also allows for some separation of employee and public parking, with differing levels of security and privacy.

Feasibility

To identify competitive patterns and norms, the author reviewed HUD and DCA data on projects awarded LIHTCs in the City of Atlanta. The data below suggest that the size of LIHTC developments is driven by funding restrictions, while income mix is driven by funding competitiveness as well as the bottom line. Projects awarded tax credits in Atlanta typically exceed the affordability requirements mandated by Federal legislation.

Table 6. **Key Findings: LIHTC Awards for Family Apartments.**

Key Findings, LIHTC Awards for Family Apartments in Atlanta, 2009-2012		
	Range	**Median**
Award amount	$580K-$950K	$850,000
DCA funds per low income unit	$6,440-$15,350	$10,200
Total units	40 to 156	100
1 BR	36% to 75%	56%
2 BR	0% to 55%	30%
3 BR	9% to 25%	14%
Low income units	38 to 132	90
60% AMI Units as Pct. of LI Units	60% to 89%	75%
50 % AMI Units as Pct. of LI Units	11% to 40%	25%
LI units as % of total units	60% to 100%	85%
60% AMI Units as Pct. of All Units	45% to 85%	60%
50% AMI Units as Pct. of All Units	11% to 40%	15%
Source: Author's analysis of Georgia Department of Community Affairs data		

The Westside Station Apartments development will begin with 3 phases of LIHTC apartments The 2013 QAP caps the total amount of tax credits awarded to any project at $950,000, which effectively limits the scale of any development phase to around 100 units. Currently the spread between LIHTC and market rents in the area makes 100% affordable apartments more cost-effective. However, mixed-income development is desirable due to the high level of poverty in

the area. As the Westside Park comes to fruition and the area around the BeltLine and MARTA is redeveloped, market rents will become more financially viable. Therefore the final phase of the apartment component is a 162 unit, market-rate development, as shown on the following page. The pro forma assumes a variance to waive some of the retail parking requirement, given the proximity to transit, and the high number of new, on-street parking spaces provided.

The BeltLine Subarea 2 plan calls for environmental conservation and/or public green space on approximately 205,000 square feet of land in the northern parcels. The pro forma assumes the conserved land will be transferred to the BeltLine or related entities, and assigns the acquisition cost of that land to public partners.

Brownfield remediation will be a major component of this project's feasibility, but is not the focus of the current study. Without hiring a specialized environmental consultant, the remediation costs and potential liabilities associated with the site cannot be reliably estimated, making the identification of specific funding sources premature.

Table 7. Westside Station Apartments: Project Information.

Westside Station Apartments						
Worksheet 1: Project Info						
Land Cost						
Land cost/acre	$800,000					
	Approx. SF	Approx. Acres	Cost Allocation			
North parcels (development)	374,035	8.6	$6,880,000			
North parcels (conservation)	205,000	4.7	$3,760,000			
North parcels	**579,035**	**13.3**	**$10,640,000**			
South parcels	**291,852**	**6.7**	**$5,360,000**			
Total land cost	**870,887**	**20**	**$16,000,000**			
Land Cost Allocation: North Parcels						
	Phase 1	**Phase 2**	**Phase 3**	**Phase 4**	**Total**	
Apartment Units	105	105	105	162	**477**	
Percent	22%	22%	22%	34%	**100%**	
Land Cost Allocation	$1,514,465	$1,514,465	$1,514,465	$2,336,604	**$6,880,000**	
Cost Assumptions	**Cost**	**Per Unit**				
Land	$18.37	SF				
Off-site improvements	$5	SF				
Construction costs						
Apartments	$85	SF				
Retail	$100	SF				
Industrial	$45	SF				
Architect fee	5%	Construction cost				
Engineering	1%	Construction cost				
Permits	2%	Construction cost				
Constr. financing exp.	6%	Construction cost				
Perm. financing exp.	4%	Construction cost				
Developer fee	11%	Construction cost				
Operating reserves	6%	Construction cost				
LIHTC Maximum Rents				Market Rents		
Unit Size	50% AMI	60% AMI		Apartments (Phase 4)	$1.40	Per SF/Month
1 BR	$622.50	$747		Retail (Phase 4)	$25.00	Per SF/Year
2 BR	$746.25	$896		Light industrial	$5.50	Per SF/Year
3 BR	$862.50	$1,035				
Source: Author's calculations. See Appendix.						
Operating Expenses & Replacement Reserves						
Operating expenses & replacement reserves		$4,500	per unit			
Expected vacancy rate		7.0%				
Permanent Loan						
Term in years	40					
Int. Rate	4.50%					
Debt Coverage Ratio (DCR)	1.25					
LIHTC Financing	**9% credit**					
Effective tax credit rate	8.28%					
Investor price per credit $						
Federal	0.92					
State	0.35					

Table 8. Northern Block Program: Apartments and Retail.

Square Footage Calculations		
Courtyard area		
Triangular area A = sqrt [s (s-a)(s-b)(s-c)]		
a =	300	
b =	500	
c =	600	
s =	700	
A =	74,833	
Total courtyard area	**74,833**	
Total building footprint		
Depth	80	
Width	1,700	
Total building footprint	**136,000**	
North Block built area		**Percent**
Building footprint	136,000	65%
Courtyard	74,833	35%
Total North Block built area	**210,833**	**100%**
North Parcels SF		**Percent**
North Block (building & court)	210,833	36%
Public streets	153,000	26%
Creek buffer & conservation	215,202	37%
Total North Parcels SF	**579,035**	**100%**
Retail gross floor area		
Depth	60	
Width	500	
Retail gross floor area	**30,000**	
Apartment footprint		
Gross floor area	136,000	
Less retail floor area	30,000	
Less parking deck encroachment	6,750	
Apartment footprint	**99,250**	

Apartment gross floor area	
Development footprint	136,000
Floors	4
Total development SF	544,000
Less Retail	30,000
Less parking deck encroachment	27,000
Apartment gross floor area	**487,000**
Total gross floor area & FAR	
Apartment gross floor area	487,000
Retail gross floor area	30,000
Total gross floor area	**517,000**
Residential FAR	0.841
Nonresidential FAR	0.052
Total FAR	**0.893**
Net rentable area	
Apartment common area factor	15%
Apartment net rentable area	**413,950**
Retail common area factor	15%
Retail net rentable area	**25,500**

Apartment Units					
Type	Units	SF/Unit	Percent	Net rentable area	
1 BR	309	750	56%	231,812	
2 BR	122	1010	30%	124,185	
3 BR	46	1250	14%	57,953	
Total	**477**		**100%**	**413,950**	
Average SF per Unit	**868**				
Apartment Phasing	**Phase 1**	**Phase 2**	**Phase 3**	**Phase 4**	**Total**
LIHTC units	105	105	105	-	315
Market units	0	0	0	162	162
Total units	**105**	**105**	**105**	**162**	**477**
Percent of total	22%	22%	22%	34%	100%
Net rentable area	91,121	91,121	91,121	140,587	413,950
Gross floor area	107,201	107,201	107,201	165,396	487,000

Parking Estimates

Retail Off-Street	Zoning Min*	Zoning Max**	Proposed***
SF Retail	30,000	30,000	30,000
Parking spaces/1000 SF	11.33	13.30	8.77
Total retail off-street parking spaces	**340**	**399**	**263**
*Conservatively assumes 40/60 bar/restaurant split			
** Conservatively assumes 20/80 bar/restaurant split			
***Apply for waiver due to high number of on-street spaces provided			

Off-Street Parking	Courtyard Deck	Surface Parking	Total
Spaces	740	-	740
Cost per space	$17,000	$5,000	$17,000
Construction hard cost	**$12,580,000**	**$0**	**$12,580,000**
Construction soft cost at 20%	$2,516,000	$0	$2,516,000
Total construction cost	**$15,096,000**	**$0**	**$15,096,000**
Footprint (SF)	63,000	0	63000
Additional land cost/SF			
Total additional land cost		**$0**	
Total cost	**15,096,000**	**-**	**15,096,000**

Cost Allocation by Apartment Units (Remainder to Retail)			
LIHTC Apts 1	$ 3,323,019		$ 3,323,019
LIHTC Apts 2	$ 3,323,019		$ 3,323,019
LIHTC Apts 3	$ 3,323,019		$ 3,323,019
Market-Rate Apts & Retail	$ 5,126,943	$ -	$ 5,126,943
Total	**$ 15,096,000**	**$ -**	**$ 15,096,000**

Apartment Off-Street		Required Spaces (Zoning)				Proposed	
Unit Type	Units	Min/Unit	Min Total	Max/Unit	Max Total	Per Unit	Total
1 BR	309	1	309	1.25	386		
2 & 3 BR	168	1	168	2	336		
Total	**477**	**1**	**477**	**1.51**	**722**	**1**	**477**

Parking Deck/Lot Dimensions			
	Courtyard	**Surface**	**Total**
Length	350	0	
Width	180	120	
Footprint	63,000	0	63,000
Floors	4	1	
Total SF	252,000	0	252,000
SF/Space	340	320	
Total spaces	740	0	740

North Block On-Street Parking	
Linear feet of right of way	4900
Less un-useable length	200
Length per parking space	20
Total on-street spaces	**235**
Spaces contributing to retail rqt.	77
Additional on-street spaces	158

Table 9. **Northern Block: Parking Estimates.**

Table 10. Westside Station Apartments: LIHTC Financing.

WESTSIDE STATION APARTMENTS: LIHTC FINANCING PER PHASE (1-3)

Tenant Mix						
	Pct. of All Units by	Low Income Units			Market-Rate	
Bedrooms	No. of BRs	50% AMI Units	60% AMI Units	Total	Units	Total Units
1 BR	56%	15	44	59	0	59
2 BR	30%	8	24	32	0	32
3 BR	14%	4	11	15	0	15
Pct. of LIHTC Units by Income		25%	75%	100%	--	--
Pct. of Total Units by Income		25%	75%	100%	0%	100%
Total		26	79	105	0	105
			Eligible basis	100%		

Potential Gross Income							
	Low Income Units				Market-Rate Units		All Units
	50% AMI		60% AMI				
Bedrooms	Monthly Rent per Unit	Total Monthly Rent	Monthly Rent per Unit	Total Monthly Rent	Monthly Rent per Unit	Total Monthly Rent	Total Monthly Rent
1 BR	$620	$9,027	$745	$32,959	$800	$0	$41,986
2 BR	$745	$5,811	$895	$21,212	$950	$0	$27,023
3 BR	$860	$3,130	$1,035	$11,447	$1,100	$0	$14,578
PGI/Month		**$17,969**		**$65,617**		**$0**	**$83,586**
PGI/Year							**$1,003,032**

LIHTC Per Year						
	Calculation of Costs			Total Costs by Category		
Uses	**Cost**	**Multiplier**	**Unit**	**Eligible Uses**	**Ineligible Uses**	**Total Uses**
Land	$6,880,000	22%	North Parcels		$ 1,514,465	
Off-site improvements	$5	180,000	SF		$ 900,000	
Construction costs	$85	107,201	SF	$ 9,112,000		
Parking constr. (hard & soft combined)					$ 3,323,019	
Architect fee	5%	Construction cost		$ 456,000		
Engineering	1%	Construction cost		$ 91,000		
Permits	2%	Construction cost		$ 182,000		
Construction financing expenses	6%	Construction cost		$ 547,000		
Permanent financing expenses	4%	Construction cost			$ 364,000	
Developer fee	11%	Construction cost		$ 1,002,000		
Operating reserves	6%	Construction cost			$ 547,000	
Total uses				**$ 11,390,000**	**$ 6,648,484**	**$ 18,038,484**
x % of basis eligible				100%		
Total eligible basis				$ 11,390,000		
x effective tax credit rate				8.28%		
Effective LIHTC per year				$ 943,092		
x Avg. price/dollar (Federal credit)*				$0.92		
Equity per year from investor (Federal credit)				$867,645		
x Avg. price/dollar (Georgia credit)**				$0.35		
Equity per year from investor (Georgia credit)				$330,082		
Total equity from investor				$11,977,268		

*Source: Affordable Housing Finance. (2013). Retrieved from: http://mydigimag.rrd.com/publication/frame.php?i=148088&p=&pn=&ver=swf

**Source: Interview with LIHTC developer

Table 11. **Westside Station Apartments: LIHTC Capital Structure.**

Calculation of Max Loan Amt		
Year	1	
PGI	$1,003,032	
Less vacancy	$70,212	(PGI x .07)
EGI	$932,820	
Less expenses	$472,500	($4,500 x 105 units)
NOI	$460,320	
/DCR	1.25	
Debt Service/Yr	$368,256	
Term in years	40	
Nominal rate	4.50%	
Max loan amount	$6,826,183	

Calculation of Necessary Loan Amount	
Max loan + LIHTC equity	$18,803,452
Less total project cost	$ 18,038,484
Excess funding	$764,968
Maximum debt	$6,826,183
Less excess	$764,968
Necessary loan amount	$6,061,216
D/S per year	$ 326,988
DCR	1.41
BTCF	$133,332

Capital Structure	
Tax credit investor equity	$11,977,268
Taxable debt	$6,061,216
Total sources	**$18,038,484**

Table 12. **Westside Station Apartments: LIHTC Cash Flow Analysis.**

LIHTC Apartments: Cash Flow Analysis															
		Land Acquisition	Phase 1 Construction		Phase 2 Constr.		Phase 3 Constr.								
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11		
		2013-2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		
Inflation factor	2%	1	1.02	1.04	1.06	1.08	1.10	1.12	1.14	1.16	1.18	1.20	1.22		
Potential gross income per phase				$1,043,153	$1,063,214	$1,083,275	$1,103,335	$1,123,396	$1,143,456	$1,163,517	$1,183,578	$1,203,638	$1,223,699		
Phases complete				1	1	2	2	3	3	3	3	3	3		
Potential gross income (total)				$1,043,153	$1,063,214	$2,166,549	$2,206,670	$3,370,188	$3,430,369	$3,490,551	$3,550,733	$3,610,915	$3,671,097		
(Phase 1 vacancy rate)				60%	7%	7%	7%	7%	7%	7%	7%	7%	7%		
(Phase 2 vacancy rate)						60%	7%	7%	7%	7%	7%	7%	7%		
(Phase 3 vacancy rate)								60%	7%	7%	7%	7%	7%		
(Blended vacancy rate)				60%	7%	34%	7%	25%	7%	7%	7%	7%	7%		
Less vacancy				$625,892	$74,425	$725,794	$154,467	$831,313	$240,126	$244,339	$248,551	$252,764	$256,977		
Effective gross income				$417,261	$988,789	$1,440,755	$2,052,203	$2,538,875	$3,190,244	$3,246,213	$3,302,182	$3,358,151	$3,414,120		
(Operating exp. per unit)				$4,680	$4,770	$4,860	$4,950	$5,040	$5,130	$5,220	$5,310	$5,400	$5,490		
(Completed units)				105	105	210	210	315	315	315	315	315	315		
(Blended occupancy rate)				40%	93%	67%	93%	75%	93%	93%	93%	93%	93%		
Less operating expenses				$196,560	$465,791	$678,699	$966,735	$1,195,992	$1,502,834	$1,529,199	$1,555,565	$1,581,930	$1,608,296		
Net operating income				**$220,701**	**$522,998**	**$762,056**	**$1,085,468**	**$1,342,883**	**$1,687,410**	**$1,717,014**	**$1,746,617**	**$1,776,221**	**$1,805,825**		
Less debt service				$ 326,988	$ 326,988	$ 326,988	$ 326,988	$ 326,988	$ 326,988	$ 326,988	$ 326,988	$ 326,988	$ 326,988		
Before-tax cash flow				**($106,286)**	**$196,011**	**$435,068**	**$758,481**	**$1,015,895**	**$1,360,422**	**$1,390,026**	**$1,419,630**	**$1,449,233**	**$1,478,837**		
DCR					1.60	2.33	3.32	4.11	5.16	5.25	5.34	5.43	5.52		
Break-even point					75%	46%	59%	45%	53%	53%	53%	53%	53%		

Inflation factor source: http://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20121212.pdf

Table 13. Westside Station Apartments: Market-Rate Financing.

WESTSIDE STATION APARTMENTS: MARKET-RATE FINANCING (PHASE 4)					
Development Costs					
Uses	**Cost**	**Multiplier**	**Unit**	**Subtotal**	**Total Costs**
Land	$6,880,000	34%	North Parcels		$ 2,337,000
Off-site improvements	$5	500,000	SF		$2,500,000
Construction costs					
Apartments	$85	165,396	SF	$ 14,058,679	
Retail	$110	30,000	SF	$ 3,300,000	
Total construction costs					**$ 17,358,679**
Architect fee	5%	Construction cost			$ 868,000
Engineering	1%	Construction cost			$ 174,000
Permits	2%	Construction cost			$ 347,000
Construction financing expenses	6%	Construction cost			$ 1,042,000
Permanent financing expenses	4%	Construction cost			$ 694,000
Developer fee	11%	Construction cost			$ 1,909,000
Operating reserves	6%	Construction cost			$ 1,042,000
Total uses					**$ 28,271,679**
Potential Gross Income					
	Apartments	**Retail**	**Total**		
Stabilized rents per SF/month	$1.40	$2.08			
x Net rentable area	140,587	25,500			
Stabilized PGI/month	$196,822	$53,125	$249,947		
x 12					
Stabilized PGI/year	$2,361,858	$637,500	$2,999,358		
Less vacancy (7%)	$165,330	$44,625	$209,955		
Stabilized EGI	$2,196,528	$592,875	$2,789,403		
Less expenses ($4,000 x 308 apts; $7 x SF retail)	$1,232,000	$178,500	$1,410,500		
NOI	$964,528	$414,375	$1,378,903		
Cap rate (6% apts; 7.7% retail)	6%	7.70%			
Value	$16,075,467	$5,381,494	$21,456,961		
Capital Structure					
Total development cost	$ 28,271,679	100%			
Conventional debt	$19,790,175	70%			
Investor equity	$8,481,504	30%			
Loan Information					
Term in years	40				
Nominal rate (apts 4.5% x 87% SF + retail 5.5% x 13% SF)	4.63%				
D/S per year	$1,087,557				
DCR	1.27				

Table 14. **Market-Rate Apartments and Retail: Cash Flow Analysis.**

Market-Rate Apartments & Retail: Cash Flow Analysis															
	Land Acquisition	Phase 1 Construction			Phase 2 Constr.			Phase 3 Constr.		Phase 4 Constr.	Stabilization				
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
	2013-2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Inflation factor	2%	1	1.02	1.04	1.06	1.08	1.10	1.12	1.14	1.16	1.18	1.20	1.22
Potential gross income									$3,419,268	$3,479,255	$3,539,243	$3,599,230	$3,659,217
(Vacancy rate)									60%	7%	7%	7%	7%
Less vacancy									$2,051,561	$243,548	$247,747	$251,946	$256,145
Effective gross income									$1,367,707	$3,235,708	$3,291,496	$3,347,284	$3,403,072
Less operating expenses									$643,188	$1,521,647	$1,547,883	$1,574,118	$1,600,353
Net operating income									**$724,519**	**$1,714,060**	**$1,743,613**	**$1,773,166**	**$1,802,718**
Less debt service									$ 1,087,557	$ 1,087,557	$ 1,087,557	$ 1,087,557	$ 1,087,557
Before-tax cash flow									**($363,038)**	**$626,503**	**$656,056**	**$685,609**	**$715,161**
DCR									0.67	1.58	1.60	1.63	1.66
Break-even point									51%	75%	74%	74%	73%
Cash-on-cash return									-4%	7%	8%	8%	8%
Inflation factor source: http://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20121212.pdf													

Table 15. **Southern Block Program: Westside Market (Light Industrial Incubator).**

Southern Block - Light Industrial Incubator										
Building	**Building Location**	**Unit**	**Unit Location**	**Unit Description**	**Column Width**	**Column Depth**	**Bays**	**SF**	**Building Total SF**	**Block S Total SF**
1	West frontage	1	NW Corner	Brewery?	50	50	8.5	21,250		
1	West frontage	2	Middle N	Co-Work/Biz Center	50	50	6	15,000		
1	West frontage	3	Middle S		50	50	3	7,500		
1	West frontage	4	SW Corner		50	50	5.5	13,750		
1									**57,500**	
2	North frontage	1	W		50	50	2	5,000		
2	North frontage	2	Middle		50	50	2	5,000		
2	North frontage	3	E		50	50	7.5	18,750		
2									**28,750**	
										86,250

Net Leasable Area			
	Light manufacturing	Retail	Total
Gross leasable area	83,250	3,000	86,250
Common area factor	0.15	0.15	
Net rentable area	70,763	2,550	73,313

Table 16. **Southern Block: Parking Estimates.**

SF/ parking space, incl. landscaping & circulation:					320								
Parking Required (I-2 Zoning w/ BeltLine Overlay)													
Land Use	**1 Required Space Per __ SF**		**Estimated Building SF**			**Required Spaces**		**SF / Parking Space**	**SF of Required Parking**	**Shared Parking**		**Less Shared Parking**	**Required Spaces Less Shared Parking**
Manufacturing		300	83,250				278	320	88,800			88,800	278
Bars		75	3,000				40	320	12,800		25%	9,600	30
Total							**318**	**320**	**101,600**			**98,400**	**308**
Parking Provided													
Parking Lot	**Lot Location**		**SF**		**SF per Space**		**Proposed Spaces**						
1	NW		15,000		320		46						
2	N		5,000		320		15						
3	SE		80,000		320		250						
Total			100,000				311						

Table 17. Westside Market: NMTC Financing.

GAO Model - New Markets Tax Credit Financing	
Source: U.S. Government Accountability Office. (2010). New markets tax credit: The credit helps fund a variety of projects in low-income communities, but could be simplified. Retrieved from http://www.gao.gov/new.items/d10334.pdf	
Calculation of Investor Equity Contribution	
QEI	$9,000,000
x tax credit rate	0.39
NMTCs to investor	$3,510,000
x tax credit price	$0.70
Investor equity contribution	**$2,457,000**
Calculation of Leveraged Loan Amt	
QEI	$9,000,000
Less investor equity	$2,457,000
Loan 2: Leveraged loan	**$6,543,000**
CDE Fees & QLICI	
CDE sponsor fee rate on total QEI	5%
CDE sponsor fee (one time)	$450,000
QLICI (QEI less CDE fees)	**$8,550,000**
Calculation of Loan 1 Amt	
Investor equity	$2,457,000
Less CDE fee	$450,000
Loan 1 amt: tax credit equity	**$2,007,000**
Loan 1 Information: Tax Credit Equity Contribution	
Amount	$2,007,000
Rate	1%
Term	7
Amortization	Interest only
Monthly D/S	$1,672.50
Annual D/S	$20,070
Total D/S	**$140,490**
Put/call rate on NMTC allocation	55%
Equity to QALICB at 7 yrs	**$1,930,500**
Loan 2 Information: Leveraged Loan	
Amount	$6,543,000
Rate	4%
Term	7
Amortization	Interest only
Monthly D/S	$21,810
Annual D/S	$261,720
Total D/S	$1,832,040.00
NMTC Loans 1 & 2: Total	
Amount	$8,550,000
Monthly D/S	$23,482.50
Annual D/S	$281,790
Total D/S	$1,972,530
Conventional Loan at Year 8	
Amount (QLICI less called equity)	$6,619,500
Rate	4.50%
Term	40
Monthly D/S	$29,759
Annual D/S	$357,106
Total D/S	$14,284,230

Table 18. **Westside Market: Development Costs.**

WESTSIDE MARKET: LIGHT INDUSTRIAL FINANCING							
Development Costs							
Uses	**Cost**	**Multiplier**	**Unit**	**Subtotal**	**Private Total**	**Public Total**	**PPP Total**
Land							
Developer land cost (market rate suburban cost)	$800,000	6.7	Acres		$ 5,360,000		
Public land cost	Remainder					$ -	
Total land cost	$5,360,000	100%	South Parcels				**$ 5,360,000**
Off-site improvements	$15	235,000	SF			$3,525,000	
Construction costs							
Light industrial ($40-$70 depending on finish, etc.)	$50	83,250	SF	$ 4,162,500			
Loading, surface parking, & plazas	$15	162,500	SF	$ 2,437,500			
Restaurants/bars	$110	3,000	SF	$ 330,000			
Total construction costs					**$ 6,930,000**		
Soft costs	35%	Construction cost			$ 2,426,000		
Contingency	5%	Construction cost			$ 347,000		
Total uses	40%				**$ 15,063,000**	**$ 3,525,000**	**$ 18,588,000**

Table 19. **Westside Market: Pro Forma and Capital Structure.**

Potential Gross Income				
	Light Industrial		**Retail**	**Total**
Stabilized rents per SF/month		$0.46	$2.08	
x Gross leasable area		83,250	3,000	
Stabilized PGI/month		$38,156	$6,250	$44,406
x 12				
Stabilized PGI/year		$457,875	$75,000	$532,875
Less vacancy (7%)		$32,051	$5,250	$37,301
Stabilized EGI		$425,824	$69,750	$495,574
Less expenses (1.2 x SF industrial; $5 x SF retail)		$99,900	$15,000	$114,900
NOI		$325,924	$54,750	$380,674
Cap rate (7.5% industrial; 7.7% retail)		7.5%	7.70%	7.53%
Value		$4,345,650	$711,039	$5,056,689
DCR				1.25
Maximum D/S per year				$304,539
Capital Structure			**Pct. of Total**	**Pct. of Subtotal**
Cash equity	$	3,513,000	19%	23%
Grant (TBD)	$	3,000,000	16%	20%
NMTC Note 1: Tax Credit Equity Contribution	$	2,007,000		
NMTC Note 2: Leveraged Loan		$6,543,000		
NMTC Notes: Total	$	8,550,000	46%	57%
Subtotal	**$**	**15,063,000**		**100%**
DOT & TAD Funds for Public Right of Ways	$	3,525,000	19%	
Total Sources	**$**	**18,588,000**	**100%**	

Table 20. **Westside Market: Cash Flow Analysis.**

Westside Market Cash Flow Analysis													
		Land Acquisition	Construction	Lease-Up		Stabilization			Refinancing				Sale
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
		2013-2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Inflation factor	2%	1	1.02	1.04	1.06	1.08	1.10	1.12	1.14	1.16	1.18	1.20	1.22
Potential gross income			$543,533	$554,190	$564,848	$575,505	$586,163	$596,820	$607,478	$618,135	$628,793	$639,450	$650,108
(Vacancy & collection rate)			90%	40%	10%	5%	5%	7%	5%	5%	5%	7%	5%
Less vacancy & collection			$489,179	$221,676	$56,485	$28,775	$29,308	$41,777	$30,374	$30,907	$31,440	$44,762	$32,505
Effective gross income			$54,353	$332,514	$508,363	$546,730	$556,854	$555,043	$577,104	$587,228	$597,353	$594,689	$617,602
Less operating expenses			$11,720	$71,698	$109,615	$117,887	$120,071	$119,680	$124,437	$126,620	$128,803	$128,228	$133,169
Net operating income			**$42,633**	**$260,816**	**$398,748**	**$428,842**	**$436,784**	**$435,363**	**$452,667**	**$460,608**	**$468,550**	**$466,460**	**$484,433**
Less debt service		$281,790	$281,790	$281,790	$281,790	$281,790	$281,790	$281,790	$357,106	$357,106	$357,106	$357,106	$357,106
Before-tax cash flow		**($281,790)**	**($239,157)**	**($20,974)**	**$116,958**	**$147,052**	**$154,994**	**$153,573**	**$95,561**	**$103,503**	**$111,444**	**$109,354**	**$127,327**
Equity investment		($1,250,062)	($2,262,938)						$1,930,500				
Sale													$6,434,978
Net before-tax cash flow		($1,531,852)	($2,502,095)	($20,974)	$116,958	$147,052	$154,994	$153,573	$2,026,061	$103,503	$111,444	$109,354	$6,562,305
Net present value	8%	$644,053											
IRR		10%											
DCR					1.42	1.52	1.55	1.54	1.27	1.29	1.31	1.31	1.36
Break-even point					69%	69%	69%	67%	79%	78%	77%	76%	75%
Cash-on-cash return					3%	4%	4%	4%	3%	3%	3%	3%	4%
Inflation factor source: http://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20121212.pdf													

Appendix 1: Summary of Zoning Controls

Zoning Restrictions			
	MRC-2	**I-2**	**BeltLine Overlay**
	(Medium Density Mixed Res./Comm.)	**(Heavy Industrial)**	
Bulk Controls			
Max FAR - Residential	0.696		
Residential FAR bonus - Affordable housing	+.5 - 1.196 if at least 20% AH w/ proportional mix of BRs to mkt apts		
Max FAR - Nonresidential	2.5	2.0	
Max total FAR with bonuses	3.696, i.e. AH gets full bonus, so open space & street retail bonuses are irrelevant		
Max site coverage	85% or less		
Allowable building height	Min 24 ft façade, max 225 ft bldg height		
Setbacks			
Min. Front Yard		40'	
Min. Side Yard	Res 20', or 0' if no res windows facing	20'	
Notes		Build to lot line or set back at least 10 feet	
Min. rear yard	Res 20'		
Block size	New block faces shall be 400 ft or less & connected by public streets		
Min. sidewalk width	15' (incl. 5' planting/furniture)		
Min. supplemental zone	5' if adjacent to ground-floor res or location on an arterial		
Minimum Open Space			
Residential	10% for lots 1 acre or less, 20% for 1+ acres		
Nonresidential	20% net lot area. Not open space rqt for minor uses making up <20% of the total floor area		
New street incentive	Up to 34' new ROW (2 travel lanes plus surface parking) counts as open space		
Onstreet parking incentive	New onstreet parking counts		
Residential balconies	Count up to 6' in depth		
Supplemental zone			Counts as long as all nonres uses visible & accessible to public
Minimum Off-Street Parking			
Residential			1/DU
Nonresidential			1/300 SF if no underlying min
Business establishments		1 /200 SF	
Eating & drinking	1/100 SF	1/100 SF	
Bars		1/75 SF	
Manufacturing		1/300 SF	
Outdoor dining over 25% footprint		1/200SF incl. exempt 25%	
For bars		1/250SF incl. exempt 25%	
Maximum Parking			
Residential			1.25/1BR, 2/2BR
Nonresidential			10> min or 25%> than min, whichever is greater
Max driveway width			12' one way or 24' 2 way
Parking garages			Must have active uses on ground fl. st. frontage
Surface parking			Cannot be between bldg & street
Relationship - bldg to street			Delineate 1st, 2nd, 3rd fl. No barbed or razor wire visible from street. Must have fenestration every 20 feet. BeltLine & arterials: nonresidential building fenestration & entrances must amount to 65% of the length of street frontages, starting no more than 3 feet above the ground and ending no less than 10 feet above the ground. Local streets: residential & nonresidential fenestration & entrances must amount to 30% of length of street frontages

LIHTC Rent Limits

Fulton County, Georgia										
FY 2013 MTS Income Limit Area	Median Income	**FY 2013 MTS Income Limit Category**	**1 Person**	**2 Person**	**3 Person**	**4 Person**	**5 Person**	**6 Person**	**7 Person**	**8 Person**
Fulton County	$66,300	50 Percent Income Limits	$23,250	$26,550	$29,850	***$33,150***	$35,850	$38,500	$41,150	$43,800
		60 Percent Income Limits	$27,900	$31,860	$35,820	***$39,780***	$43,020	$46,200	$49,380	$52,560

Source: http://www.huduser.org/portal/datasets/il/il13/index_mtsp.html

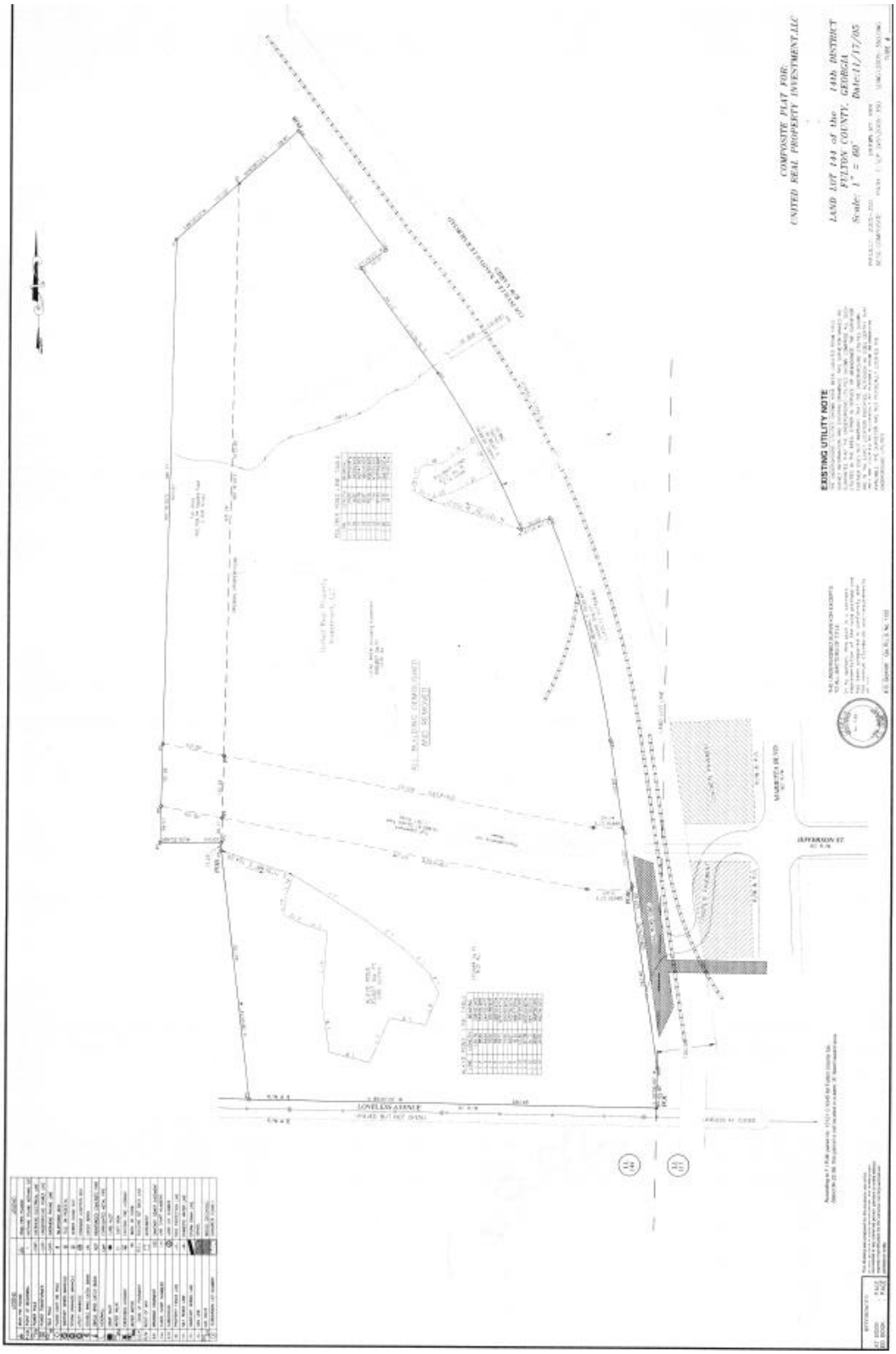
2013 QAP: 5. Rents. Rent standards derived from the most recent AMI, FMR, and applicable underwriting utility allowance must be used to determine project rents and rent restrictions. Please note that for purposes of determining the maximum allowable rent limits, regardless whether a property is considered Rural, the applicable HUD program rent limits must be used. Applicants are encouraged to underwrite projects at less than maximum tax credit rents. However, applicants that underwrite at less than maximum tax credit rents will be required to use the reduced rent level at project completion.

[...]

b) Tax Credit (only). Gross rents may not exceed 30% of 60% of the effective AMI table for the appropriate bedroom size. Applicants should assume 1.5 persons per bedroom

		50% AMI Limits			60% AMI Limits		
	x 1.5 persons	Income	Rent/Yr	Rent/Month	Income	Rent/Yr	Rent/Month
1 BR	1.5	$24,900	$7,470	$622.50	$29,880	$8,964	$747
2 BR	3	$29,850	$8,955	$746.25	$35,820	$10,746	$896
3 BR	4.5	$34,500	$10,350	$862.50	$41,400	$12,420	$1,035

Appendix 3: Site Survey



Appendix 4: Summary of Site Information

Address	762 Marietta Blvd	780 Marietta Blvd	Jefferson St NW Rear	Total
Location	North parcel	South parcel	West parcel	-
Boundaries				
City Council District	3 & 9	3	3	-
Zip code	-	-	-	30318
Voting Precinct	-	-	-	17903R
Planning				
Zoning	MRC-2	I-2	I-2	
Neighborhood	Indeterminate.	Grove Park to W. Knight Park/Howell Station to NE.		Bankhead to SE.
NPU	-	-	-	J
Future Land Use	Mixed-Use	Mixed-Use	TCU & OS	-
BeltLine Planning Subares	-	-	-	9
Land				
Tax parcel	14 0144 LL014	14 0144 LL014	14 0144 LL0215	-
Land Lot		14 0144 (Lot 144 of 14th District)		
Economic Development				
New Markets Tax Credits Area	-	-	-	Yes
Empowerment Zone	-	-	-	No
TAD	-	-	-	BeltLine
BeltLine AHTF	-	-	-	Yes
NSP 1	-	-	-	Yes
NSP 3	-	-	-	No
Renewal Communities	-	-	-	Yes
LCI				Bankhead
Economic Development Priority Areas	-	Hollowell Pky Corridor	-	-
Environmental				
Brownfield	Yes	-	-	-
National Wetlands Survey		Inland Aquatic Beds (2)		

Atlanta Public Schools	Distance (ft)
Woodson	3,000
Grove Park	5,000
Carson Honors	6,000
Boyd	7,200
Herndon	5,200
Bethune	9,700
Centennial Place	10,800

Public Safety	
Police Patrol Zone	1
Police Beat	106
Police Precinct	Fulton County Jail?
Fire Stations	Station 22 - 7,000 ft to west
Stormwater	1,000 ft to SW (850 ft elev.)
Base flood elevations	

Address	762 Marietta Blvd	780 Marietta Blvd	Jefferson St NE Rear	Grove Park Pl NW Rear
Location	North parcel	South parcel	West parcel	Overlaps West parcel
Owner	United Real Property		United Real Property	Georgia Power
Land Use Code	400		700	700
NBHD	C408		1409	1409
PROP_CLASS	I5		R3	U3
CLASS	I		R	U
TOT_APPR	$2,218,800		$32,600	$595,400
TOT_ASSESS	$887,520		$13,040	$0
IMPR_APPR	$480		$0	$0
LAND_APPR	$887,040		$13,040	$238,160
Calc_Acres	16.51		2.52	60.94
APPR_SF	3		0.00	0.00
Calc_SF	719,190.64		109,775.59	2,654,452.30

Appendix 5: Summary of Brownfield Information

		BROWNFIELD INFORMATION: EPA CERCLA DATABASE											
		SITE INFO							Operable Units ID		00 (Statewide)		
		Name	AZS Chemical Co.										
		Street	762 Marietta Blvd NW						**Contacts**				
		NPL Status	Not on the NPL	Definition of NPL: National Priorities List					Site Assessment Managers (SAMs)				
		Non-NPL Status	Deferred to RCRA	Definition of RCRA: Resource Conservation & Recovery Act					Carolyn Callihan		(404) 562-8913		
		EPA ID	GAD057288144						William Joyner		(404) 562-8795		
		EPA Region	4						Donna Seadler		(404) 562-8870		
		Actions											
OU		Action Name	Qualifier Code	Qualifier Description				Lead Code	Lead Description		Actual Completion		
00		Discovery						F	EPA Fund-Financed		7/1/1980		
00		Preliminary Assessment	N	NFRAP-Site does not qualify for the NPL based on existing information				S	State, Fund Financed		9/17/1985		
00		Archive Site						EP	EPA In-House		12/19/1996		
00		Preliminary Assessment	D	Deferred to RCRA (Subtitle C)				S	State, Fund Financed		4/7/2008		
00		Site Unarchived						EP	EPA In-House		5/14/2008		

Appendix 6: Classic Foods Case Study

Classic Foods Case Study								
From ULI Article:								
Unimproved building size	50,000		s.f.					
Acquisition cost	$1,400,000	28	per s.f.					
Site size	1.53	acres	66,647	sf				
Project cost*	$5,000,000							
per s.f.	$115							
Total s.f.	43,478							
*Includes land & building improvements, soft costs, & equipment (lower cost than suburban alternatives)								
Total land area	66500	s.f.						
Improved useable building area	43458	s.f.						
Financing	Amt	Rate	Term (yrs)	Percent of Cost	Savings (b.p.)	Total savings ($)		
State tax-exempt industrial bond	$3,300,000	5%	5	67%				
Bank acquisition & constr. loan								
Bank purchase of bond					175	$850,000		
State business energy tax credits	$40,000					50% of E costs over standard practice		
Public acquisition loan	$250,000	4%	5					
Public kitchen equipment loan	$200,000	4%	5					
Storefront improvement grant	$20,000							
Foundation energy grant	$17,000							
Subtotal (debt & grants)	$527,000			11%				
Federal energy tax credits (pending)*	$180,000			-				
Owner equity	$1,200,000			23%				
Total sources (excl. Federal tax credits)	$5,027,000							
*Expected upon LEED certification								
FROM ARISTONDEV.COM:								
	S.F.							
Gross	42,492							
Office	3,321							
Kitchen	6,480							
Gallery/Exhibit Space	2,340							
Storage & Distribution	30,351							
Address	817 NE Madrona, Portland, OR							
Neighborhood	Woodlawn							
Architect	Vallaster Corl Architects							
Completion	Dec. 2010							
General Contractor	SD Deacon							
LEED Status	Platinum							
Owner Entity	JSG Acquisitions							
Tenant	Classic Foods							
Business Owner	Jake Greenberg							

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